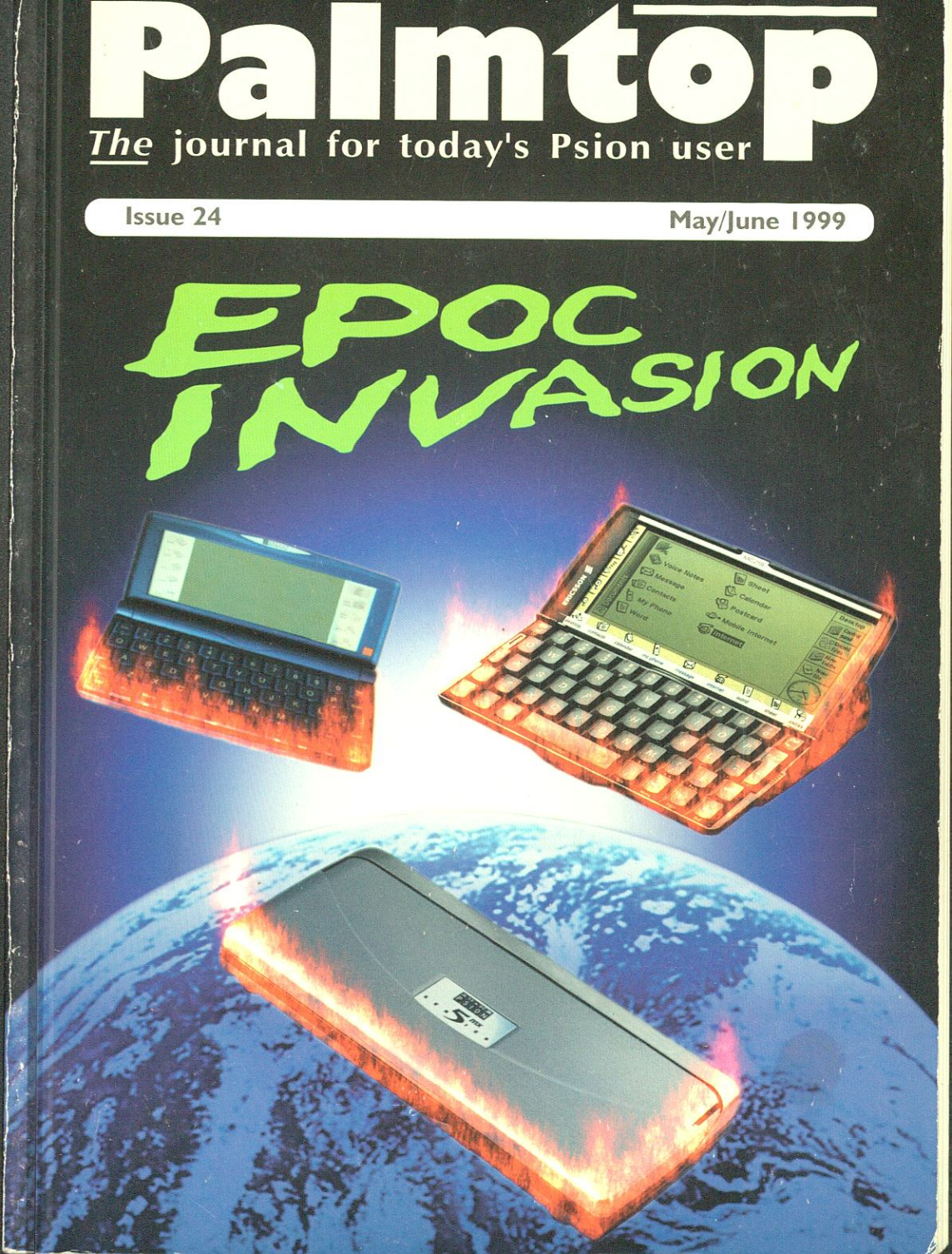
Palmtop

The journal for today's Psion user

Issue 24 May/June 1999

EPOC INVASION



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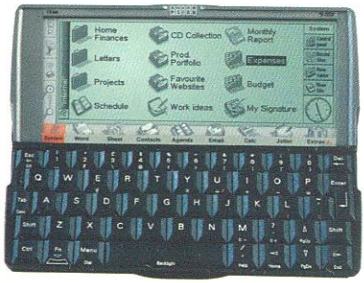

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(Volume 4, issue 6)

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Editorial

Haven't things changed around *here*? What with full colour on every page and no fewer than *three* new machines to talk about, you'd be forgiven for thinking you've picked up the wrong magazine. EPOC users now have a wider choice of hardware to choose from, and provided that the new machines attract a healthy quantity of new customers (rather than just wooing away existing Psion users), the resulting growth of the platform will give a boost to EPOC software development too.

For my own part, I'm eager to see what kind of a worldwide marketing job Ericsson and others manage for their new EPOC hardware. Psion aren't in the same league as these telecommunications giants when it comes to pumping money into advertising campaigns and TV coverage, and coupled with their experience of selling into different market areas we should see a rise in the profile of handheld computing, or more importantly, EPOC and Symbian handheld computing.

As far as international sales go, Psion's presence in the USA has always been weak, with most Americans completely unaware of the Psion brand. Once again, household names such as Ericsson, Nokia, Motorola and the latest partners, Panasonic (Matsushita), will increase consumer awareness. Elsewhere, EPOC's excellent foreign language support helps to maintain it as a strong contender against the more US-centric Windows CE platform.

Despite some success in the USA, Windows CE has not yet overtaken the worldwide market, with 3Com and Psion/Symbian/EPOC still in strong positions. In many respects CE is still seen as a cumbersome, under-powered operating system, with the 3Com Palm/Pilots the hardware of choice for more modest 'organiser' functions and Psion computers as the pinnacle of sophistication and handheld computing power.

Steve Clack, June 1999

Palmtop is...

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Steve Litchfield - Contributing Editor

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Series 5 cartoons - Carl Reader

Additional photography - John Powell

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Newsreel

What's new in the Psion world...

EPOC explosion

No fewer than three new EPOC machine variants are being released this summer: the Series 5mx (due to ship in bulk in the UK from the beginning of July), the Oregon Scientific Osaris (late June), and the Ericsson MC218 (July/August). You can read in-depth reviews of all the machines from page 23 onwards.

Matsushita join Symbian

On May 25th, Matsushita Communication Industrial Co. Ltd., better known as Panasonic, joined Ericsson, Motorola, Nokia and Psion as a further Symbian shareholder.

"Our investment in Symbian demonstrates our commitment to EPOC technology for next generation Wireless Information Devices," said Takashi Kawada, President of Matsushita Communication. "Our strategic relationships with other market leaders and our expertise in manufacturing wireless devices will ensure the rapid acceptance and delivery of tried and tested Smartphones and Communicators, based on Symbian's EPOC technology."

The introduction of Matsushita Communication, the fourth largest handset manufacturer in the world, further strengthens Symbian's position within Japan and the Asia Pacific region.

ROM upgrade rumoured

It is rumoured that a ROM upgrade for pre-'mx' Series 5 machines is being planned by Psion, possibly for release this summer. The upgrade is likely to offer identical functionality to the mx, but no corresponding memory or processor speed upgrades are anticipated.

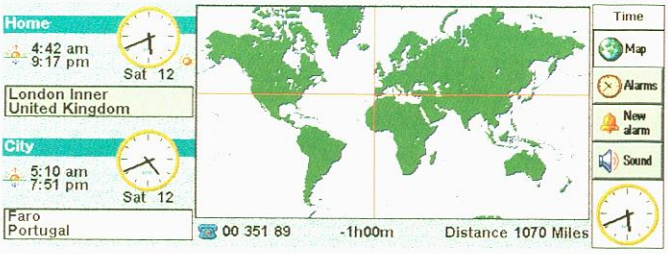
New Psion web sites

Psion launched *three* new web sites on 15th June, in addition to a makeover of the existing *www.psion.com* front page:

www.mobile.psion.com
Designed for the mobile individual who owns a Series 5mx or Series 5 with Message Suite. This site details the correct procedure for setting up a modem or mobile phone and has an interactive database, allowing ISP files to be installed directly to your Psion.

www.series5mx.com
This site shows new users (or prospective new users) exactly how the Series 5mx can be used. Links to the other new sites are included, plus FAQs and other relevant areas.

www.planet.psion.com
Designed specifically for access via your Psion computer rather than a PC, this basic, monochrome-only site offers useful Psion-related news updates and other information.



The shape of things to come? The EPOC Emulator, now free and in colour...

EPOC SDKs now free

Symbian have made their software development kits available free of charge. C++, OPL and Java versions of the development tools are available for free download from the EPOC World web site. The connectivity SDK is also available.

The OPL SDK includes what is effectively a Series 5mx emulator, which has support for 256 colours as well as several other enhancements.

www.epocworld.com

SIBO support withdrawn

Symbian's development support for the Series 3 range of products has been officially withdrawn. The Psion web site states that Psion distributors will still attempt to answer developer questions to the best of their ability, also recommending developers to seek answers from SIBO developer kit documentation or use the Internet for support.

www.psion.com/support/sibodev.html

Psion Industrial name change

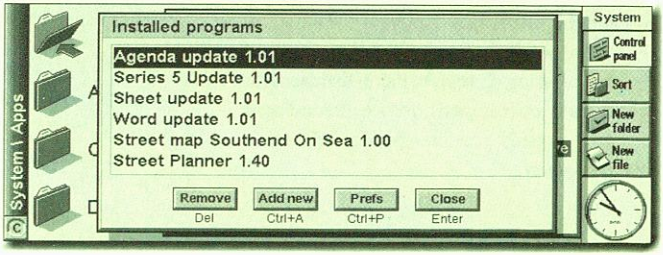
Psion Industrial has changed its name to *Psion Enterprise Computing*. This reflects the company's evolution towards delivering handheld computers that allow employees to have enterprise-wide access to data and communications.

Psion Enterprise Computing: 0990 134976

Series 5 Service release

On 15th June, Psion released *Service Pack 1* for the Series 5 (pre-mx) as a free download from the Psion web site, containing patches to three applications: AGENDA, WORD and SHEET.

'Add/remove' after applying the service release update



Many readers could be forgiven for assuming that, as this patch was released on the same day as the 5mx, the update would add 5mx features to the older machine. That's *not* the case, with the patch merely addressing minor bugs.

The downloadable ZIP file is 370K in size, containing a single SIS file, loading over 900K of data onto your Series 5. After installation, the Series 5 reboots itself and starts up with the updated applications. The full service pack, or any element of it, can be removed via the 'Add/remove' icon in the Control panel.

This service release applies to all versions of the Series 5 and at the time of going to press is available in English only. French, German, Dutch, Italian and Spanish versions will be available shortly.

Some early downloaders have highlighted a conflict with some features of Message Suite 1.52. In the next issue we will look in more detail at how this release affects users of the different Series 5 ROM versions, and will go into detail on what is included. In the meantime, if you are uncertain, we recommend that you *don't* install the service pack until you have read our report.

Psion in action

Radio stations across the UK, including BBC Radio 1, have recently reported the work of Psion and hard case manufacturers Palm-Tec in reuniting Kosovan refugees. Palm-Tec's Guy Monson was interviewed on-air about his idea of using Psions in Palm-Tec cases to collect data on refugees before uploading it to an already established web site, *www.refugjat.org*

The data collection system, which is now in operation in the former Yugoslavia and may soon be adopted permanently by the Red Cross, gives instant world-wide access to information on the whereabouts and well-being of thousands of ethnic Albanians forced to flee their homes during the war. Psion donated 60 machines to the project, with Guy praising them for their generosity.

www.palmtec.com

Adobe Acrobat on the 5mx?

With the advent of the Series 5mx, news that Adobe is releasing a Java version of their popular Acrobat viewer is very welcome. Given that the Java runtime environment is supplied with each 5mx machine, it may soon be possible to use the program to read PDF files on your palmtop.

www.adobe.com/prodindex/acrviewer/main.html

'Jedi' to become netBook

Psion Industrial's 'Jedi' project, the colour-screened sub-notebook computer to run EPOC, is to be named the 'netBook', it was revealed at the Series 5mx press launch on 15th June. We hope to include a first look at the netBook in the next issue of *Palmtop*.

Psion Enterprise Computing: 0990 134976

EPOC Developer Conference 1999

by Pete Sipple

By holding the first of their EPOC Developer conferences on 3rd/4th June, Symbian have proved that they take the mobile communication business seriously. This two day event was held at the prestigious Queen Elizabeth II Conference Centre in the heart of London's Westminster. I attended this conference both in my capacity as a registered EPOC developer, and on behalf of *Palmtop*.

For those not in the know, EPOC is the operating system at the heart of the Series 5, the new Series 5mx, the Ericsson MC218 and Oregon Scientific Osaris machines. Until June of last year, this software was under the auspices of Psion Software, but it's now the cornerstone of Symbian, the joint venture of the top names in mobile communications and computing. Psion, and now Symbian, have always had a policy of releasing support tools and documentation to their commercial, shareware and freeware developers. The creation of the EPOC World web site was a landmark in Psion's efforts to support the developer, and this conference, hosted by Symbian, reaffirmed their commitment to their developers and licensees.

Sponsoring or speaking at the conference were representatives from Motorola, Nokia, Ericsson, Matsushita, Sun Microsystems, Psion, ARM, Oracle Corporation, Sybase, Graham Technology, Puma Technology and Purple Software. As well as the conference itself, many of the sponsors had showcase stands, with devices such as Psion Industrial's forthcoming *netBook* machine, scheduled for release around October, as well as the Ericsson MC218.

A rough head count indicated that around 300 speakers and delegates were present, from countries including the USA, Austria, China, Finland, France, Germany, Russia, Singapore, Switzerland and the UK. The price for conference registration was £300, which included copious amounts of documentation, refreshments, entrance to all presentations and seminars, lunch on both days and a conference dinner at the Café Royal in Regent Street.

Presentations

The conference had something to interest everyone. As well as in-depth technical information for developers, much was said about industry trends and the direction mobile technology is likely to take. The buzzword for the conference was the acronym "WID". Standing for *Wireless Information Device*, this encompasses handheld units such as the Series 3 and Series 5 families, email/SMS-enabled mobile phones, communicators and the huge number of smartphones that we can expect to appear on the market in coming months.

Opening remarks

The keynote speech was delivered by Colly Myers, Symbian's CEO. He outlined his vision of the future, a new 'Network Economy', stating that the mobile phone market had previously been grossly underestimated by the world's big names. It is now expected that by 2005 there will be a billion users of mobile phones—that's one in six of the world's population. Later in the day, Nokia suggested that this date should be brought forward to as early as 2003. Online transactions and real-time data are the future, and as EPOC has been adopted by Symbian's partners it will be the major platform used by the mobile communication industry. He remarked that we should be "Privileged to be living in an electronic age" and to be part of this new Network Economy. He also commented that Symbian, its partners, licensees and developers should work together to take advantage of the new opportunities.

EPOC Release 5

The release of Symbian's latest operating system, *EPOC Release 5*, had been timed to coincide with this conference, and CD ROMs of the various C++, OPL and Java Software Development Kits (SDKs) were distributed during the conference. These disks were (literally) hot off the press, after an overnight re-press had become necessary in readiness for the conference.

Many of the enhancements made in EPOC Release 5 can be found on board the new Psion, Ericsson and Oregon Scientific machines reviewed elsewhere in this issue. Martin Tasker, Symbian's Head of Technical Communications, detailed many of the new features of the operating system, including the new *Contacts* application and compatibility with the *vCard* (Virtual Business Card) standard.

DFRD

Standing for *Device Family Reference Design*, DFRD spells the way forward for EPOC and Symbian. All new hardware containing Symbian's software will fall into one of four categories, and will use an appropriate version of EPOC. Each of the categories has a 'gemstone' codename:

- **Emerald** - a smartphone, probably with pen/touchscreen input with a display size of around 320 x 120 pixels. The display can be in either portrait or landscape format.
- **Sapphire** - A smartphone driven from a keypad, with a display size of around 200 x 200.
- **Quartz** - A pen-based communicator with a portrait display and voice capability, with an approximate screen size of 320 x 240 pixels.
- **Crystal** - A larger handheld communicator with a landscape display of 640 x 200 pixels or greater. The EIKON interface as used on the Series 5 family is deemed to be best suited to this type of device.

One of the greatest strengths of EPOC is claimed to be its flexibility. The modular nature of the software means that it can be easily adapted for different hardware types. Symbian will supply the appropriate *Device Family Operating System* to a licensee, who are then able to write their

own User Interface to meet their particular requirements. More announcements related to similar developments are expected in the third quarter of this year.

EPOC World

David Wood, Executive Vice President of Symbian's Technical Consulting outlined a host of new initiatives for developer support, including the revamp of the EPOC World web site, a new pricing structure, new certification programmes, newsletters and documentation. For details of the new pricing structure, developers who were unable to attend the conference should look at *www.epocworld.com* . In summary, the new structure is as follows:

- **Standard membership** - This is now free, allowing more people than ever to develop for EPOC. The Software Development Kits and Emulators can be freely downloaded upon registration.
- **Professional membership** - Prices remain unchanged at £175 for C++ and Java, £65 for OPL. Access is given to beta test areas, knowledge bases and more forums.
- **EPOC Centres** - A new structure for support to corporate users, including access to pre-beta material, on-site training and certification programmes.

Pay-as-you-go incident tracking is now available for users working through projects, although support for incidents becomes free if an undocumented defect is revealed.

Training courses, books on EPOC programming and more frequent world-wide conferences are all in the pipeline.

EPOC Connect

EPOC Connect started life as PsiWin 1.0 back in June 1995. Connecting from an EPOC-enabled device to a PC has now moved on in the shape of 'EPOC Connect 5', which was released in March this year. Carlos Bain, from Symbian Technical Consulting, explained that connecting to a PC is now faster and more reliable, has improved conversion facilities and comes with a greatly improved synchronisation function. With the latest connectivity software, closing files is a thing of the past and the ability to talk to desktop email systems such as *Exchange* and *Outlook* is a big bonus which will no doubt be welcomed by many business users. Matt Millar from Symbian expanded on the topic of connecting to desktop PIMs (Personal Information Managers), explaining compatibility with the new *vCard 2.1* and *vCal v1.0* standards, which make EPOC able to exchange data with devices such as the Palm/Pilot family and the Nokia 9110. Both sessions contained much useful information for the developer, with associated notes and example code being supplied to delegates on CD ROM.

Developer information

The second day of the conference had a heavy slant towards emerging technologies. For example, *Bluetooth*, which allows for personal short-range radio networks to be established between devices, and *WAP*, the protocol that enables wireless devices

to access and interact with online information services. Much discussion took place regarding the implementation of Java into the latest release of EPOC, and how the addition of this open-platform environment opens many doors for EPOC developers.

Industry trends

Several interesting talks were given by key players in the *Wireless Information Device* industry, including senior representatives from the following companies:

Ericsson - discussing the opportunities for developers and WAP, the Wireless Application Protocol. As bandwidth for mobile communications becomes available, coupled with packet technology, we can expect to see more being done on the move. With speeds of two megabits per second planned for 2002, videoconferencing and online interactive services from handheld devices will soon be a reality.

Sun - explaining how JINI, an extension of JAVA, will enhance future wireless devices.

Motorola - discussing how JAVA and EPOC will work together.

Matsushita - Symbian's latest partner, talking about the next generation of Wireless Information Devices.

Nokia - personally, the talk from Nokia's colourful Lauri Hirvonen was my favourite. The climax of his talk on the future of handheld devices being the screening of a corporate video from Nokia, showing how, in the future, Nokia will be making our lives better. Scenes from the video included a cyclist talking to a racing

colleague via a handlebar display, a schoolchild watching a video while waiting for a train, a commuter making a hotel reservation from his car dashboard and a multilingual business meeting being held using a Universal Translator. Worrying visions of a community of WID slaves aside, much of the video raised laughs from the audience, as did the final *piece de resistance*, a board of directors watching a project manager's holographic presentation. "We're working on it" was the wry reply from Mr. Hirvonen when a delegate asked for an expected delivery date for a holographic imaging system!

Questions to the panel

The end of the first day's conference was in the form of a panel discussion, with questions from the floor. Again, the top names were assembled and a lively debate continued well past the scheduled end time. Greater bandwidth and packet-technology will shortly allow us to get so much more from our mobile devices, essentially enabling us to be online the whole time, receiving information and emails as they are sent. With 200 million mobile phones in use today and an expected five-fold increase in the next four years, the search is on for the 'killer app'—maybe in the area of handheld gaming, gambling, financial transactions, route planning or online information. The message is clear—now is the time to seize and embrace this new technology and EPOC is the way forward.

INDUSTRY NEWS

In this regular feature we devote a single page to what's happening in the non-EPOC sector of mobile computing...

The last two months has seen a notable reduction in the number of new handheld computers being launched into the mobile market. Casio has announced a new Handheld PC entitled the Cassiopeia 'Computer Extender'. Based on the Windows CE operating system, this new monochrome device is aimed squarely at the educational market and includes resources such as the Key Curriculum Press. Acer, well known for its desktop PCs, will soon be developing handheld devices based on Windows CE.

The Palm Computing platform will soon be available in a Japanese language variant. The completion of an 18 month joint venture between Browne Global Solutions and 3Com Palm Computing has resulted in a completely redesigned interface for the popular operating system. The new version has been adapted to serve the growing Japanese market. 3Com has recently cut $50 off the recommended retail prices of the PalmPilot Professional and the Palm III. This latest drop in prices has been attributed to the vast increase in sales of these models.

iBiz Technology has announced a new accessory for Palm-Size PC users, the iKey Mite keyboard, which measures just 4.5" x 10". Although designed specifically to allow the input of data to the 3Com Palm/Pilot, a version of the keyboard will soon be available for Casio Cassiopeia, Everex Freestyle and Philips Nino users.

Those who use their handheld computers to print while on the move have been treated to the launch of what Brother claims is the smallest ever colour inkjet printer. The MP-21C has an amazingly small footprint and weighs in at just two pounds. However, performance has been compromised and when printing in colour two pages per minute is the best the device can manage.

Pretec have announced the launch of a range of high capacity type II Compact-Flash cards. The cards will be available in capacities varying from 80 to 320MB. Although the smaller cards are available now, the 320MB cards will not hit the market until well into the second half of this year.

Finally, the Health and Safety Executive have commissioned a comprehensive twelve month study investigating possible health risks associated with the use of notebook and handheld computers. The research will involve surveys in a vast number of organisations in the United Kingdom and the results will be used to formulate new health and safety guidelines on how to make mobile computing safer.

Andy Nott

Shareware Shorts

Steve Litchfield, maintainer of the 3-Lib shareware library, takes a look at the latest additions to the world of Psion shareware...

Thanks go to those who spotted my mistake in last issue's Shareware Shorts. Attributing some of Adam Sissman's games to the new shareware software house Neuon was entirely my fault, although in my defence the recent trend to set up shareware consortiums must seem more than a little confusing to the observer.

The idea's a good one, for sure. Find a few other Psion authors of similar outlook and set up a joint enterprise, each of you feeding off the others' expertise and each advertising the others' programs. With more software on the web site you'll get more visitors, growing the scene even more. It's good for the general user, too, with the convenience of being able to download, get support for and register more than one piece of software at the same time.

RMR and Palmscape were the first two shareware 'houses', closely followed by Palmtime and Neuon. The only downside is that it can get slightly confusing trying to find a specific program or to contact an author—whereas they were once independent, each with their own web site. There's a good possibility that they've now signed up with a shareware house, or in some cases joined house 'A', left it again and joined 'B'.

Which brings me almost back to where I started. At the recent Palmtop Computer show in Birmingham, Adam Sissman was snapped doing some sort of deal with Palmscape's Paul Law, thus proving that things don't stand still for long in the shareware world.

Future proof?

Once upon a time there was just Psion. Then GeoFox came (and went). Now we need to look out for Ericsson, Oregon Scientific and others, all claiming different degrees of support for existing Series 5 software. There are no hard and fast rules, as I'm starting to find out. Of the 20 or so shareware titles I tried on the large-screened GeoFox, five of them crashed and burned, mostly because of subtle differences in the ROM 1.01 chips. Add in the extra variable of different EPOC versions (1.02, 1.05, etc.) and the [Manufacturer]/[Screen size]/[EPOC version] cocktail becomes even more unpredictable.

Don't be *too* disheartened—the great majority of applications will run quite happily on most EPOC palmtops—and at least we're avoiding the huge mess in the Windows CE world, where authors have to write separate

versions for each of the three or four different processors. It does pay though, more now than ever, to 'try before you buy'. The shareware principle has never made more sense, with even major commercial applications coming in 'demo' versions. Well-written, professional programs should serve you well whatever EPOC machine you end up buying next.

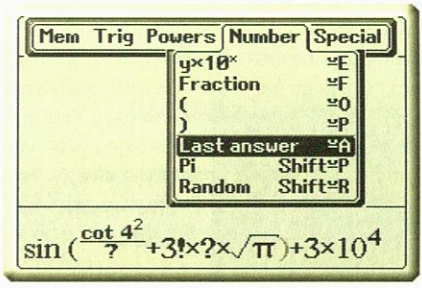
Series 3 range

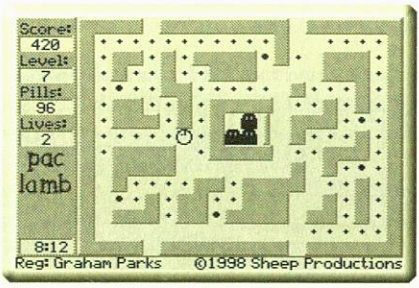
Siena

As is traditional here, let's look at the 16-bit world first. **David Rushall** has announced a new 'charityware' version of *Solun*. A convenient tool for the amateur astronomer, it provides planetarium and star atlas displays, a world map view, orrery and quick observation solar-system displays. Built-in almanac reports include lunar month, rise and set times and eclipses.

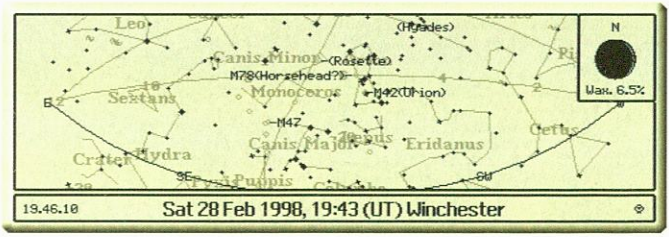
Graham Parks has asked me to point out that his Siena utilities *Big Sheep* and *Sheep Extras*, plus the game *Pac-Lamb* all run quite happily on the Series 3 range as well, adjusting to the larger screen dimensions. Each of his programs is highly optimised, with small disk requirements.

Financial Advisor 5.0 is a new Series 3 port of the original Siena money calculator by **Gary Perlmutter**. With hundreds of mortgage deals being offered by the various building societies and banks, this utility will help you to work out the possible monthly savings to be made by remortgaging with a new lender. If you are borrowing more than a certain amount, there may be a 'mortgage indemnity premium' to pay—this fee is also calculated. One final facility is a pension calculator,

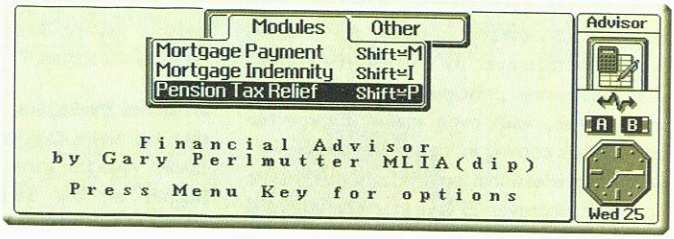




Sssssh...Graham Parks at work. One of his newer projects, plus Pac-Lamb



Scanning the night sky in Solun



The opening screen of Financial Advisor

working out the contributions net of tax relief, at both UK tax percentage breaks.

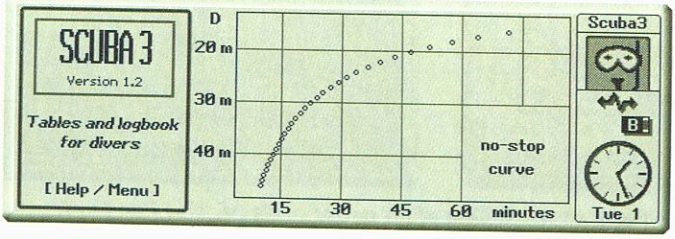
Time for a change

David Magnusson's **YoooPsen Software** are the people behind the freeware *Internet-Time*, a new way to define what time it is, regardless of where in the world you are. This global time system (do we really need another one?) was created by Swatch (*www.swatch.com*), so it's all their fault...

Scuba3, by **Jean-Yves Pontailler**, is a simple freeware utility for scuba divers. It calculates decompression time and allows the managing of a logbook, fully compatible with DATA.

UK for free

Following on from the similar move to freeware for my own *UK Pocket Directory*, **Gerard Mulholland**'s *UKsights* has been updated. It's a 200K database file of interesting places to visit in the British Isles. After failing to find a holiday book that consistently provided the details he needed on tourist attractions, Graham produced this program, which he distributes in both Series 3 and Series 5 formats.



Dive, dive, dive—with Scuba3

Name› Prime Minister's Residence
Address 11 Downing St, off Whitehall, London
Open Closed to public. Can be viewed from security gates at Whitehall
Undergrnd Westminster
http:// www.number-10.gov.uk
Notes No 10: PM's residence since 1735. Security tight after IRA mortar bomb attack from van in Whitehall. Whitehall: heart of British government. Inc Cenotaph war memorial
Find:
8 / 684

Just one of the UKsights

Also completely free now for both Series 3 and 5 are the different versions of my *Psi-Mapper*. If you've got an unregistered copy and haven't already done so, you can get free registration codes via email or the web.

Series 5 range

Following on from issue 22's 'Graphics on the Go' article, two new utilities have come to my attention. *MbmUtils* is a shareware collection of useful bitmap functions from **Daniel Sissman**, letting you rotate or change the colour mode of 4 and 16 colour bitmaps. It also allows you to look through 'mbm' bitmap files containing any number of pictures, saving out a selection into a new file. 'Print' and 'Print preview' functions are included as well, letting you dump any picture to your printer.

Also shareware is *EasyMbm*, by **Richard Wakelin**, a visual bitmap manager and picture viewer. Up to four files can be opened at once in separate multi-bitmap windows, each of which can be resized, tiled and cascaded. Bitmaps can be dragged and dropped from one window to another, from any position to another position in a file, as well as being zoomed, flipped and rotated. Selected areas of any picture can be copied by dragging with the pen and then pasted to other files.

A beat out of time

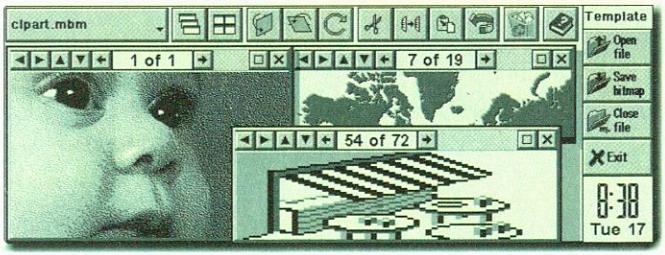
Another of **Daniel Sissman**'s works, *World-Time* displays the time in 14 places simultaneously, using analogue or digital clocks. There are many other useful functions in World-Time, including alarm setting plus city and sunlight information.

BeatTest is a reverse metronome by **Neil Sands**. The idea is that you tap the screen at the speed you want to measure and the Series 5 tells you in beats per minute how fast you are tapping. It can also display a graph which keeps track of how your speed changes over time.

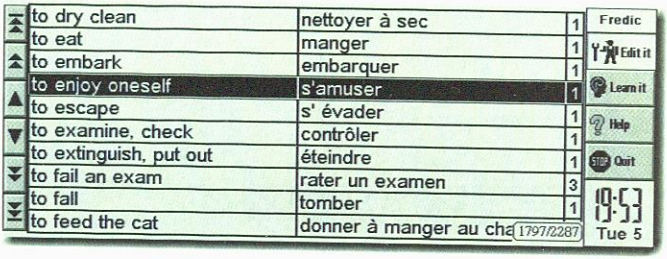
Project in your pocket

Andy Clarkson's *Plan* is now managed by a related company, **Twiddlebit**, and has been upgraded to version 5.6. As always, it's a hugely professional project planning system, compatible with Microsoft Project on the PC. Twiddlebit also now handle all of Andy's other software, so make a note of the name.

Thinking laterally, **Eric Sebban**'s *QuickP* (distributed by **Palmscape**) can also help you to manage small to medium-size projects. It aims to take the place of much of the standard Series 5 system interface, by integrating documents, AGENDA entries, contacts and so forth on a project-by-project basis. Despite the high aims of QuickP, its profes-



EasyMBM—an impressive use of screen space



Scrolling through the question list in TestMe

sionalism largely makes them possible, with many users unlikely to leave the program for much of their working day. The idea is that everything you do can be broken down into projects. Within each project will be different types of events, to-do items, documents and contacts, most of which can also have attached notes and descriptions.

A secure memory

A perennial software favourite, especially for students, is the revision aid. Usually working by flashing up 'cards' of partial information, **Gary Ewer**'s *TestMe* is a new example of the breed. He's made it freeware and included example revision databases for physics, French and German.

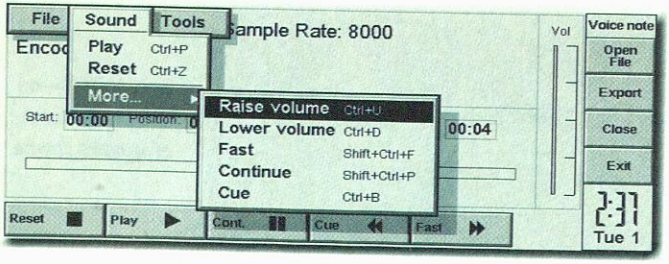
New from **Palmtop BV** are 'rolling' slide demos of their *Route Planner* and *Street Planner* products, now available on the Palmtop CD (CD08 onwards) and via the Internet.

It's magic!

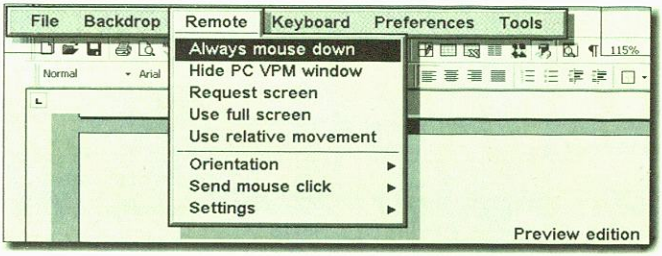
FatCatz new shareware *MagicKeys* performs two functions: it's a macro program for quickly inserting text using only a few keystrokes, and it's also a clipboard utility remembering every piece of data that you cut or copy. Up to a thousand text replacements (of up to 3000 characters each) can be stored for each file.

Also fairly magical is *SoundTrans*, by **John Forrest** (**Treesoft**). It's a sound format translation tool, directly playing and converting a number of sound file formats, including SIBO, EPOC and WAV files. There's also a command line version for the PC, running in a DOS box under Windows.

If, like **Kevin Millican**, you tend to use a number of databases on your '5', you'll find that you can often be in the wrong folder when you need to access your address book. *FavDat5* is a program that provides instant



SoundTrans at work



Using VPM to control a Windows PC

access to your 'favourite' database with one tap of the pen.

Beyond belief

Sometimes an application comes along that beggars belief. **Neuon**'s shareware *Virtual Psion Mouse (VPM)* is one such, consisting of two applications: one running on the PC and one on the Series 5. It has a transparent, scalable window which translates touch screen input on the '5' into mouse movements on the PC. In this way, you can use your Psion as a laptop-style glidepad, a graphics tablet or an alternative keyboard. On-screen buttons emulate the physical ones on the real PC mouse.

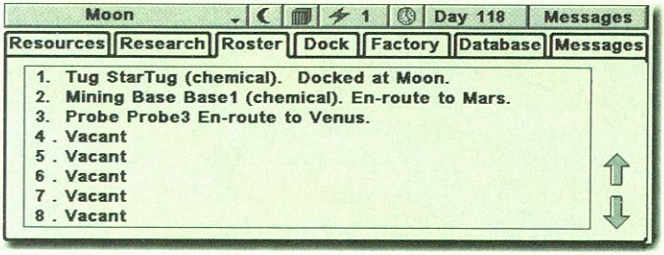
Equally bizarre is *NewtKEmu*, from **Palmtime**. An Apple Newton keyboard emulator, it works through the Series 5's serial port, enabling you to control a Newton, a PalmPilot or a Windows CE computer. All non-Newton devices will require a small utility from a third party developer that can interpret the Newton keyboard protocol.

Captains Log 2662.3

Nick Dawkins describes his new strategy game, *Stardate*, as an exercise in "Space exploration and resource management". You control the speed at which the date advances, researching probes, mining bases and tugs and then building them in the factory. Finally, you start sending them out throughout the galaxy, to any one of the dozens of possible planet destinations. As long as you do things in the right order (probes, mining bases, tugs etc.), there's a good chance of making progress and gradually colonising space. The graphics are basic, but there's the occasional picture of a planet to keep sci-fi fans happy.

Pet's corner

In case you didn't get enough novelty during the recent Tamagotchi craze, **Daniel**



Establishing a trading empire in Stardate

Sissman's *Fred* is a freeware virtual pet. Running in the background on your palmtop, he will try to amuse you when you are bored. Pets need maintenance though, so expect to have to remember to feed, play with and discipline him.

Beelogic have come up with a tile-swapping strategy game with a twist. The object of *Gemtile* is to remove a load of gem-encrusted tiles from the board, unveiling one of the available backdrops. When tapping in a cell on the board, all the tiles placed in the neighbouring cells will be cycled from type three to type two, from type two to type one and so on. When a tile reaches type zero it is removed from the board. The addictive catch is that cycling a blank cell brings forth a new type three tile.

Saving the best

Saving the best for last, you may remember the utility *NightKeys*, by **Thomas Ross**. Essentially a floating on-screen keyboard, it allowed you to input text and numbers by tapping on the screen, even in total darkness. Its one limitation was that tapping on the application behind the keyboard brought the former to the foreground, requiring you to switch back to NightKeys manually. Under the banner of **Neuon**, Thomas has now released a totally rewritten version, still freeware, which fixes this limitation and adds other features besides. Recommended.

Software availability

Solun (all CDs, CD08 for latest)

Big Sheep, Sheep Extras, Pac-Lamb (CD05 onwards)

Financial Advisor 5.0 for Series 3/5 (CD08 onwards)

InternetTime (CD08 onwards)

Scuba3 (CD07 onwards)

UKsights (all CDs, CD08 for latest)

Psi-Mapper (all CDs, CD08 for latest freeware versions)

MbmUtils (CD07 onwards)

EasyMbm (CD07 onwards)

WorldTime (all CDs)

BeatTest (CD08 onwards)

Plan (all CDs, CD08 for latest)

QuickP (CD05 onwards, CD08 for latest)

TestMe (CD08 onwards)

Demos of Route Planner and Street Planner (CD08 onwards)

MagicKeys (CD08 onwards)

SoundTrans (CD08 onwards)

FavDat5 (CD08 onwards)

Virtual Psion Mouse (CD08 onwards)

NewtKEmu (CD08 onwards)

Stardate (CD08 onwards)

Fred (CD08 onwards)

Gemtile (CD08 onwards)

NightKeys (latest version, CD08 onwards)

An easy way to find the software you are looking for on the Internet is to go to the 'Programmer directory' on *www.palmtop.co.uk/authors.htm* and look up the name of the author as highlighted in **bold** in Shareware Shorts. This will take you to the author's own web site, from where you can find out more about the product and download it directly.

What is shareware?

Written by professional programmers and enthusiasts to meet specific (and sometimes unusual) needs, shareware is often supplied for use on a thirty day trial basis. If you like the software you are then asked to send a payment to the author. Some programs are freeware and don't require any payment at all. Each program comes complete with information about how to install and use it, and how to pay for it.

Where can I find it?

One way to get any of these programs is from the Internet. If you've got access to the web there are several on-line indices which link directly to the relevant author download page concerned. Most mainstream programs (excluding games and small utilities) appear in the comprehensive Palmtop Software Directory on our web site. This is an online listing with each entry having a hyperlink directly to the program author.

Things are actually even easier if you haven't got Internet access. As long as the program concerned has been out for a month or so, you should find a copy on the latest edition of the Palmtop CD-ROM, indexed into the appropriate category.

How do I use it?

Once you've found the file you want, there are three steps you may need to take:

1. Decompress the files if necessary. If you're new to computers you may not be familiar with compression. Psion applications normally have more than one component (e.g. the program itself, help files and pictures). These are normally compressed into one file, which makes them easier to distribute. Shareware on the Internet is most commonly compressed in 'Zip' format, and you can recognise these by the '.ZIP' at the end of the filename. Before you can install and run the program you need to extract these files with an 'unzip' program, which is freely available from your shareware supplier. If you use DOS, look for PKUNZIP, Windows users can use Winzip, and Mac users should try ZipIt or the commercial Stuffit Deluxe. You can also unzip files on your Psion without using another computer, using either PsiZip (Series 3, Siena and Series 5) or RMRZip for the Series 5.

2. Copy the files. You'll probably now need to transfer the unzipped files onto your Psion. To do this you'll need some external hardware, such as the PsiWin or EPOC Connect link cable or a Cyclone drive. Normally one of the unzipped software files is a text file (e.g. README.TXT), which can be read by any word processor. It explains how the program should be installed and where the files need to be copied to on your Psion. Series 5 owners should also look out for any special SIS files, which can be double-clicked on for really easy installation.

   See 'The Installation Game' in issues 14/15 and 'Installing software - the easy way' in issue 21 for a more comprehensive discussion of the above procedures.

3. Install the application. From your Series 3 or Siena System screen, select [Psion]-[I]. If the program was copied correctly the filename should appear in the list. Select it, press [Enter], and the icon should be installed, ready to run. Series 5 users don't need to do this as the newly installed program will automatically appear on the Extras bar.

Mail box

Contribute and WIN PRIZES! The Star Letter in each issue wins the author a FREE copy of STREET PLANNER or other Psion goodies from our special collection. Prizes are valued at up to £70 each!

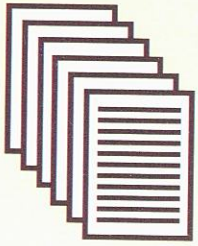
Our longest letter ever...

I hope you'll forgive the length of this letter—I started it when I first began reading *Palmtop* at around issue 6, and I've been accumulating (in a WORD document on my Psion) ever since. I finally decided that I'd never send it in if I didn't stop writing and do it *now*!

To me one of the best things about Psions is their speed and stability. I can't understand why Psion don't make marketing capital out of this, especially with the reported lightning speed of the 3mx.

How about an advertising slogan like "Forget Win-doze—it's 'instant on' with Psion!", or something similar? I love the way my 3a springs to life instantly and can be turned off equally quickly without complaint or mishap right in the middle of doing virtually anything, and then carries on from exactly where I left off when I turn it on again. I love being able to switch from my diary to address book, etc. and back again with just one keypress. My current 2MB 3a has only crashed once in all the time I've had it, and a quick paper clip in the reset hole sorted that, except for having to redo some of my customised settings. For day to day convenience when you're leading a busy life, nothing beats it, so why does Psion not focus on this aspect much more—it's such a superb selling point.

A F Jones, London
(original letter just over 4,500 words long)



Star Letter

Your weird publication dates...

Much as I love *Palmtop*, I'm often confused by your publication dates. The last issue was dated 'March/April 1999', but it didn't land on my doorstep until just *after* that period. Prior to that the magazine just said 'Bimonthly' on the cover. Am I missing something?

Albert Landis
Stanmore, Middlesex

In the days when we simply printed 'Bimonthly' on the cover we had a number of readers requesting that we date each issue to indicate the coverage period more clearly. We thus decided to put the coverage period on the front of each issue from the beginning of 1999 onwards.

As a result, issue 22 was labelled as January/February, and issue 23 as March/April. These issues both came out at the end of those periods rather than the beginning (as is more common practice), which in hindsight has caused a little confusion with some of our readers. Therefore we'll be 'bunching up' the issues a little over the coming months so that each magazine eventually appears on or *before* the date on the front cover. Please be assured that regardless of issue dates, the content of the magazine is always bang up to date.

We're aware that issue dates have been somewhat variable in the past, and are always working hard to minimise these variations. We're currently in the process of expanding our offices and taking on extra help to accommodate our constant growth, so we hope to stick more firmly to promised publication dates in the future.

We've always focussed our efforts first and foremost on providing the best possible product in *Palmtop*, and the addition of full colour from this issue onwards is the most recent example of our ongoing commitment to this.

Finally, the addition of the three new EPOC machines as reviewed in this issue should hail further expansion of the Psion scene, meaning even more growth for *Palmtop* magazine and enabling us to offer even more benefits to our readers. - Ed.

Multiple spell checkers needed

Back in the 'old days', Psion offered the thesaurus and spellchecker as an optional SSD extra for the Series 3 and 3a, and subsequently incorporated this as a standard feature. I am sure that very many users like me have found this facility, in whatever form, to be a godsend.

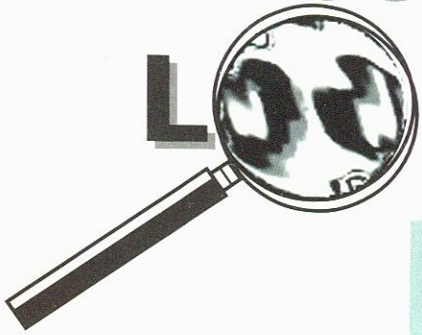
I am equally certain that there are also a lot of people, myself included, who need to conduct correspondence in other languages. I compose a lot of text in both French and German, and thus have made several enquiries regarding the availability of add-on foreign spell checker modules that can be operated from within WORD. No such product exists.

When one considers the amount of non-productive games constantly appearing, it seems amazing that no bright software author has turned their talents in this more practical direction.

Michael Bradbury
Narborough, Leicester

Plug-in foreign language spell checkers are certainly available for desktop word processors, so how about it Psion? - Ed.

A Closer Look...



...at some of the newest and most interesting products available for your Series 3 or Series 5

Star Ratings:

★★★★★ Excellent
★★★★☆ Good
★★★☆☆ Average
★★☆☆☆ Fair
★☆☆☆☆ Poor
☆☆☆☆☆ Dismal

Interpreting reviews

Quality: the *Quality* star rating reflects how well the product works, whether it includes all the features you'd expect, whether the interface is consistent and easy to use, and in data-based products it also reflects the quality of the information contained in the program.

Value: the *Value* star rating reflects the value for money of the product, taken within the context of what the program (or other product) does. Therefore a simple utility program will be rated differently to a sophisticated application at the same price.

Series 5mx Page 23

Ericsson MC218 Page 36

Oregon Osaris Page 39

Symlink Page 44

SafePlace Page 47

Series 5mx

The Series 5 was launched back in mid-June 1997. Exactly two years later, the 5mx, code-named 'Snowdrop', hits the streets with a new look, more RAM, a new processor and some new software. Let's take a look at what's changed.

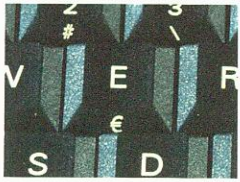
Case

Externally, the machines appear almost identical, apart from some colour changes to the case. Gone is the slightly soft black coating (famous for the 'peel' effect), and in comes a smooth metallic-grey appearance. The keyboard is now black, as is the battery compartment door and protector for the three voice recording buttons. The new style case is superbly finished, but personally I find that the mix of black and grey makes the machine look a little less 'tidy' than it's predecessor.

Keyboard

This is the same tried and trusted design as before. There's one new appearance on the keyboard, the Euro symbol, which can be accessed by pressing [Fn]-[E].

Interestingly, the label on the underside of the keyboard may reveal the plans Psion have in store for the memory sizes of future machines—see photo over the page...



New Euro support

TESTED TO COMPLY WITH FCC STANDARDS FOR HOME OR OFFICE USE.
CET APPAREIL CL B SE CONFORME AU REGLEMENT SUR LE MATERIEL
BROUILLEUR DU CANADA. THIS CLASS B DEVICE COMPLIES
WITH CANADIAN ICE REGULATIONS.
FC
SERIES 5 / SERIES 5mx
4MB, 8MB, 16MB, 24MB & 32MB

The shape of things to come? 24MB and 32MB machines...

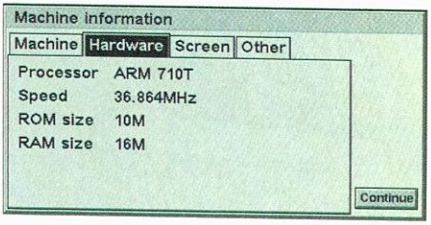
Screen

A new and slightly improved screen has been used for the Series 5mx. It's the same physical size and the backlight is similar, but it is definitely a little crisper and easier to read, particularly in low-light conditions. The contrast controls have been adjusted a little too. On my Series 5, it takes over 50 presses of [Fn]-[M] to cycle through all of the contrast settings. On the 5mx, it's just over 30. It's still not as sharp as a 3mx, but it's certainly an improvement.

The new screen is also noteworthy for a far quieter and more battery-friendly backlight (consuming about 50mA—about half that of the Series 5).

Toolbar

As with most new Psion machines, many of the toolbar icons have undergone subtle changes, mostly to make them clearer, with the use of a little less grey. There are three new additions to the icon bar beneath the screen: 'Contacts', 'Email' and 'Jotter'—more



What's inside the 5mx

A few changes to the icon bar...

on these later. Gone are 'Data', 'Sketch' and 'Time', all of which must now be accessed from the 'Extras' icon.

Under the hood

The processor at the heart of the 5mx is an ARM 710T with a speed of 36.864MHz, exactly twice as fast as the 5. The Series 5mx is currently only available with 16MB of RAM (twice the size of the Series 5). The ROM size has increased from 6 to 8 megabytes, to make way for some new applications.

The biggest changes

The 5mx comes loaded with EPOC Release 5, Symbian's latest incarnation of their operating system (see Newsreel in this issue for the background to this release). The software comes with several new goodies and fixes, and is reportedly 100 percent Year 2000 compliant. Some of the applications haven't changed, some have long awaited additions, and there are a couple of new ones added to the machine's ROM.

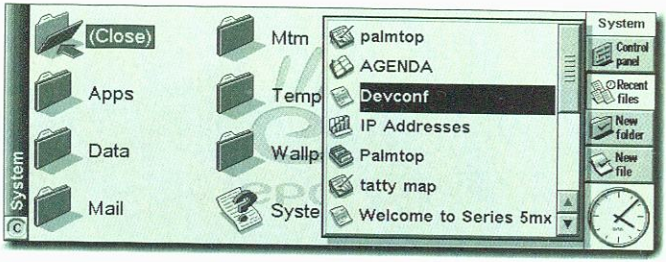
System screen

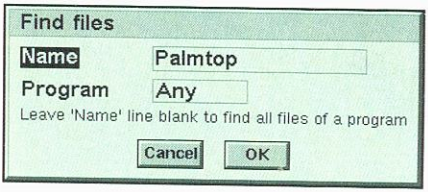
► On the toolbar, 'Sort' has been replaced by a rather useful 'Recent files' button that

PSION
SERIES 5mx
Series 5mx © Copyright Psion PLC 1999
EPOC Release 5 © Copyright Symbian Ltd 1997-1999. All rights reserved.
Version 1.05(250) - English (UK) - ASCII
Worldwide patents pending

EPOC Release 5—note the ROM version—1.05, not 1.1 as mentioned in Psion's earlier material

Jump quickly to your most recently accessed files





Find that file

allows instant access to recent files you've opened on the 5mx, sorted in order of the time and date of your last access.

- From the menu, there is now a 'Find files' option that searches through your entire machine, looking for files with a matching name. Sadly, there's no way for searching for a keyword within a file, but this new option will certainly help to track down missing documents.

- As well as having the EPOC logo on your Psion 'desktop', you can now add your own custom background to the System screen by saving a SKETCH file as 'Wallpaper' and selecting it in the System screen 'Preferences'. Unlike the previous 'desktop' logo, the new wallpaper can be told to display itself *whichever* folder you're in.

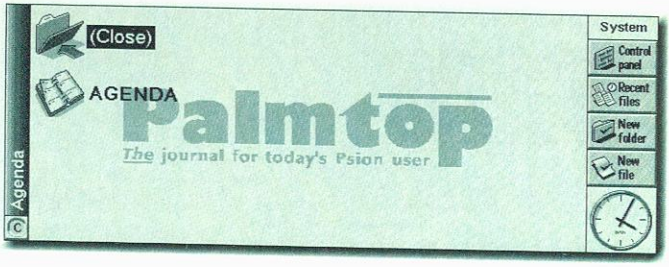
- Control panel is essentially the same as before, but it now loads instantly. A bug in the last version of Message Suite meant a wait of seven seconds on the Series 5.

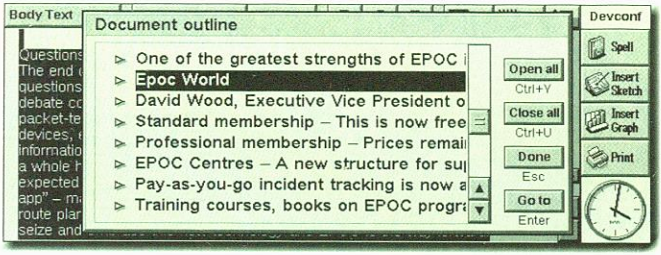
WORD

A couple of much-anticipated features have appeared here (or if you are more familiar with the Series 3 family, *reappeared*):

- An outline feature is now present, offering a navigable summary of your document onscreen. Only the first line of paragraphs in styles other than 'Normal' are shown, and when working on large documents this allows you to move quickly around, hopping to the appropriate paragraph with the 'Go to' button.

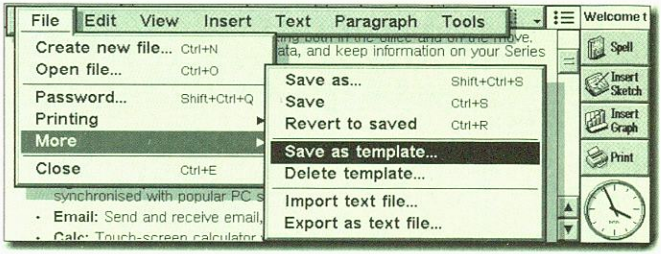
The Palmtop logo as wallpaper





Outlining—by popular demand

At last—make your own templates...



Different outline levels can be defined for each paragraph style you are using.

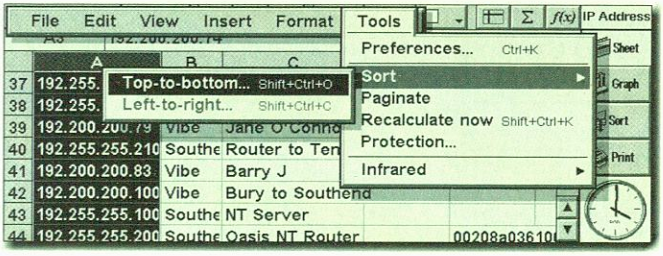
- If you've created custom forms or notepaper, you can now save these documents as templates. Four templates are supplied as standard: faxes, meeting minutes, memos and phone logs, but you can create as many additional custom templates as you need.

- Formatting flexibility is improved slightly as you can now remove formatting from a selected paragraph, or from selected text.

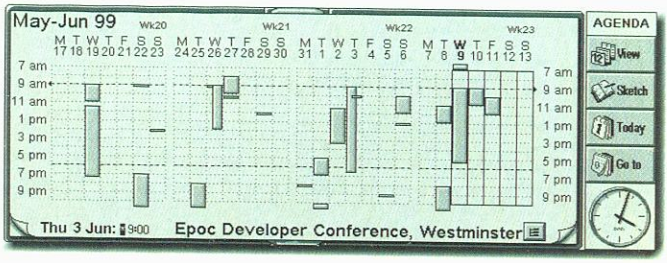
- The tediously slow Spell checker on the Series 5 now runs at an acceptable speed (though still relatively pedestrian), partly because of the new processor, but mostly as a result of a bug fix in EPOC.

SHEET

Moving from my Series 3c to a Series 5 two years ago gave me a more powerful machine with a great new keyboard. The only (personally) important thing I'd lost was the ability to sort cells in spreadsheets. The only noticeable change in SHEET on the 5mx is



Hallelujah, they've sorted Sort!



Another welcome return—AGENDA's 'Busy' view

the return of this Sort facility. You can sort from top to bottom or left to right, with a case-sensitive option if sorting text, and in either ascending or descending order on up to three sort keys.

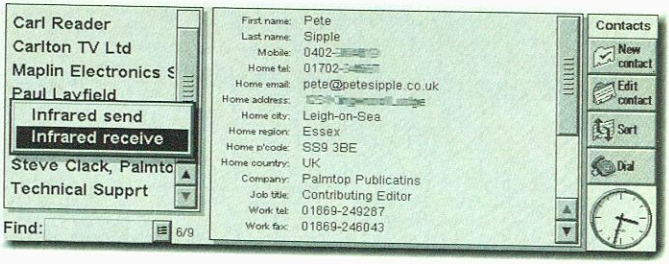
AGENDA

Another casualty from the Series 3c to the original Series 5 was the 'Busy' view that shows a whole month's appointments at a glance. That's back in the 5mx too, and it runs beautifully.

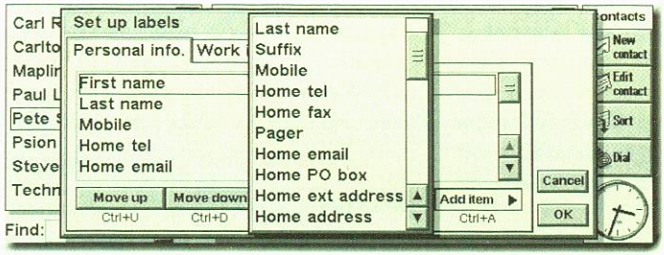
Other applications

It can be argued that the other applications, DATA, CALC, SKETCH, TIME, PROGRAM, SPELL, COMMS and RECORD were already full-featured and mature, and Symbian have obviously taken the "If it ain't broke, don't fix it" attitude here. Apart from a couple of minor cosmetic tweaks, these applications remain virtually unchanged. Surprisingly, Symbian didn't take the opportunity to update the UK dialling code database to take account of this year's area code changes. The spell checker copyright credit has changed from "Inso Corporation" to "Lernout &

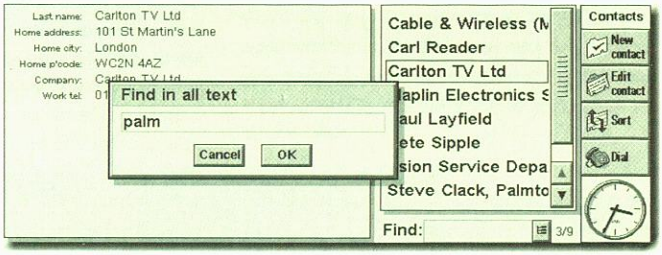
Entering a contact's details



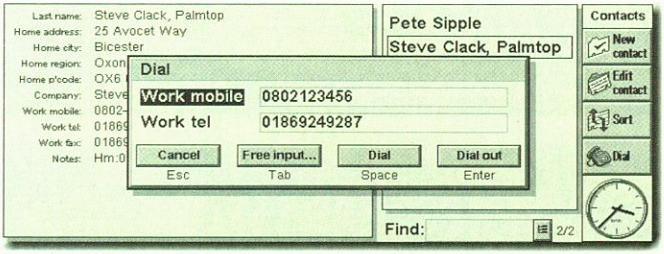
Receiving a contact by infrared



Selecting custom labels



Searching through your contacts

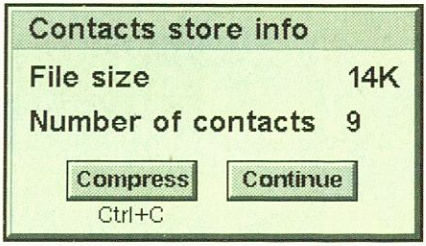


Fast dialling a contact's number

Hauspie Speech Products N.V", but the data-set seems unchanged.

CONTACTS

One genuinely new application has appeared. CONTACTS, essentially a database of names, numbers and addresses, has taken DATA's place on the icon bar, and attempts to make your contact information more accessible, compatible and synchronise-able. Custom fields are supplied for most eventualities, but they are customisable on a *per record* basis and all of the default labels can be removed or altered if required. CONTACT adheres to the *vCard* standard, and so is compatible with



Managing your database

major desktop PIMs (such as Microsoft Outlook), as well as other handheld devices. I was able to successfully 'beam' a few contacts from a Palm V machine straight into CONTACTS via infrared. The 5mx uses the *IrObex* standard and so is compatible with both Palm/Pilot machines and the Nokia 9110.

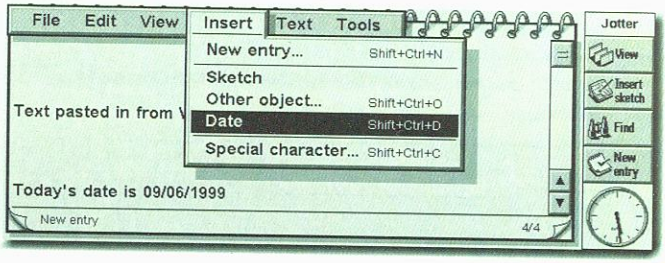
CONTACTS allows you to sort entries either by the person's name or company name, with a "Find in all text" option if you still can't locate who you're looking for. It has been well designed, from the ground up, primarily for compatibility with the rest of the world.

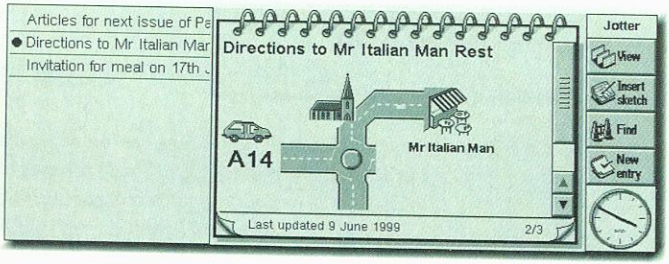
This new application doesn't use a standard database file, rather it stores its records in '\System\Data'. Note that if you only backup to CF disk, you'll need to 'Show' your System folder and copy the '\Data' folder manually.

JOTTER

Previously, if you've wanted to take notes on your '5' it's been a case of using a WORD or DATA file to store them. Now, with JOTTER, you can enter notes and information quickly and neatly. As well as typing in text, you can insert an object (e.g. a SKETCH file), or paste

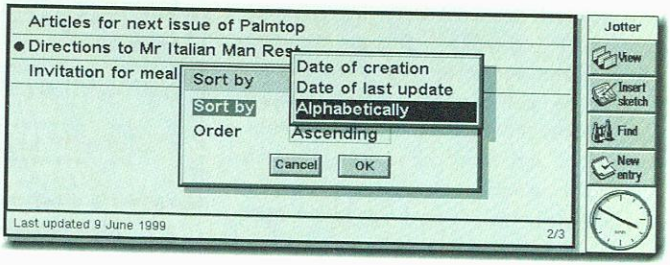
Pasting in today's date in JOTTER





A SKETCH embedded into a JOTTER entry

Sorting your thoughts...

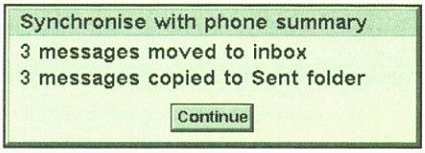


in text from the clipboard. You can read your notes in 'List' or 'Edit' views, or use the 'Split' view for the best of both worlds. A comprehensive 'Find text' option is also available.

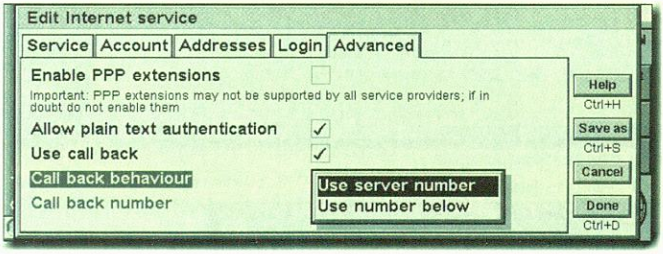
EMAIL

Since the last release of Message Suite, the email package has been beefed up a little, and is now incorporated in the Series 5mx's ROM. The whole process of setting up accounts, checking for new mail and managing your messages has been made simpler. Support is now given for sending SMS text messages via your mobile phone. I was able to send, download and synchronise text messages via my Ericsson SH888. SMS messages even have a mini-icon of a phone when delivered to your Inbox. Sales of SG Software's *PhoneMan* (issue 21, page 30) should be unaffected, as although EMAIL can now handle SMS messages, it can't sort out your phone's address book. A new 'Status' option allows you to see, full screen, what stage you are at with logging on and the download of mail, and you can now create folders for specific types of messages, such as "Work" or "Junk mail'. Addressing an email, fax or SMS message is now easier too. You no longer need to cut names and numbers from DATA as you can access the CONTACTS database directly from the toolbar, looking up the name of your recipient.

Frequent faxers will be pleased to see that there's a new cover sheet editor, plus four new templates. EMAIL now also has support for 'callback', so a generous employer may allow you to collect your emails on *their* phone bill.

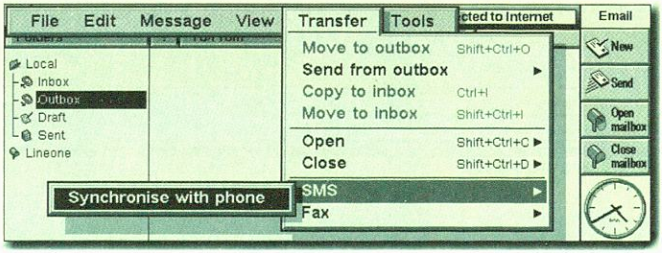


Synching your SMS messages

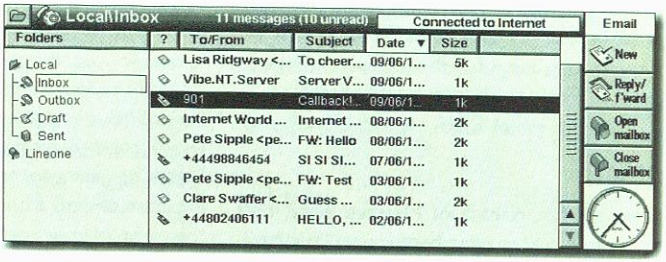


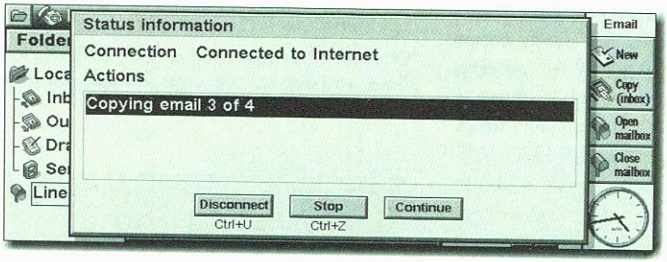
A cheaper way to surf!

Connecting to your mobile phone



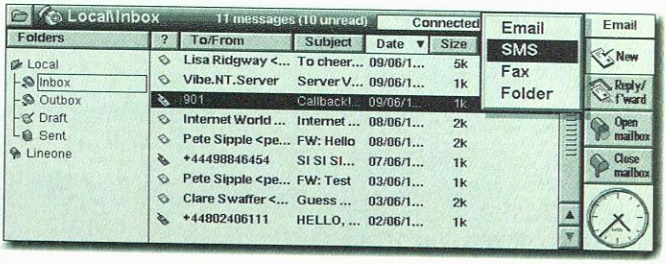
The contents of my Inbox

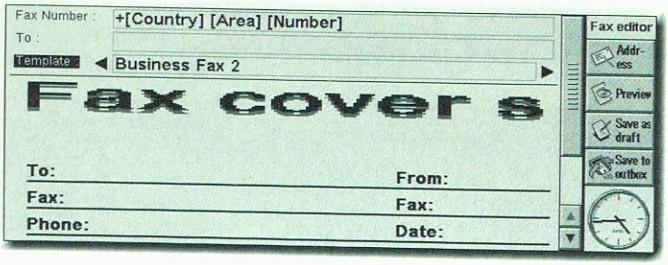




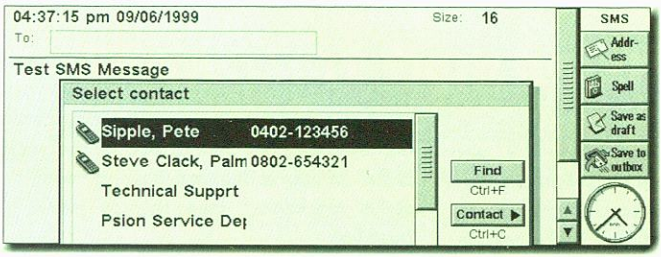
Email's status screen

Creating a new message



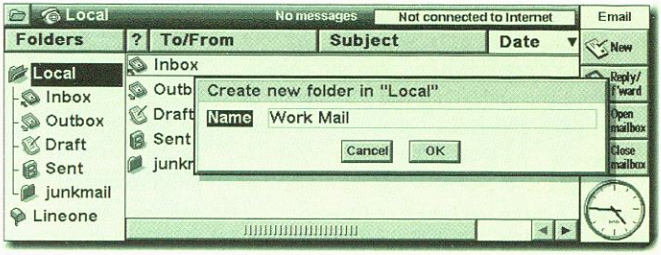


New fax cover sheets



Collecting details from CONTACTS

Creating new folders in EMAIL



Existing Message Suite users should note that the file formats appear to have changed slightly and you may not be able to copy messages from your 5's Inbox over to your 5mx.

Overall, this is a powerful program, now better, faster and more flexible.

Infrared

A long-awaited new feature is the ability to select and send multiple files by infrared from the System screen. This is done by holding down the [Shift] key and tapping in sequence on all of the files you wish to send.

WEB

Symbian's web browser is not built into the 5mx's ROM, but is supplied on the PsiWin disk which accompanies the machine. This new add-on will enable your 5mx to run Java applets, making the most of online shopping and interactive services on Java-enabled web sites. Support is also included for pages using frames and cookies. Once WEB is installed, you will also be able to tap on GIF and JPG

Auto Trader Interactive
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International
Contact
About
Jobs
Help
www.autotrader.co.uk
Auto Trader
Interactive
CHANNEL
You can search the best choice of bikes for sale across the UK.
There is a Basic Search if you just want a bike close to where you live. Or an Advanced Search if you want to specify mileage and features. Click on Helping Hand and you can receive the best tips to make your next purchase hassle free.
When you've seen what you want to buy, you can receive Finance and Insurance quotes.
http://www.autotrader.co.uk/

Now you can access web sites with frames and Java applets...

files from your System screen, viewing them in the web browser.

PsiWin

At the time of writing, PsiWin 2.3, also known as EPOC Connect 5, was unavailable for evaluation. The latest PC connectivity package is reportedly faster, more reliable, and better at synchronising. It's now possible to synchronise your CONTACTS, AGENDA, and EMAIL data with your PC without needing to close down the files and applications first, and with *vCard* and *vCal* standards supported, merging data with other software packages is reputedly a lot easier. We'll be examining these claims in our full review of PsiWin 2.3 in the next issue of *Palmtop*.

PsiWin also comes with a three month trial version of On-board Info's *Agenda Companion*, and trial versions of Lotus Notes, Novell Groupwise and Act plug-ins, electronic manuals for COMMS and EMAIL applications, as well as Java and the web browser as mentioned above. It also includes preconfigured settings for major UK ISPs.

JAVA

Apart from the ability to run web-based applets, the inclusion of JAVA support on the 5mx opens the door to a number of new applications. We'll be reporting on the future significance of this in a full article next issue.

Packaging

The colourful 5mx box makes a point of mentioning 'Batteries included', and as well as containing the machine, comes with PsiWin, the PC link cable, a few small guides ('Quick start', 'Email getting started' and 'PsiWin getting started'), as well as the main 5mx manual. The latter is in the same ring-bound style as the 5's manuals, and appears to be an improvement on its predecessor, with more examples and a good selection of screen shots. The 'Troubleshooting' section at the end even includes the remedy for the 'sticky stylus' effect, telling you how to reset the stylus mechanism (see *Palmtop* issue 15, page 86).

Summary

Some users, hoping for a colour screen and StrongARM processor, may be disappointed by Psion's first major release in two years. Nevertheless it's certainly a worthwhile progression and the power users among us will love the faster processor (see benchmarks opposite) and the additional RAM. Mobile users will appreciate the improvements made to the email and web browser software, and die-hard Series 3 users will be pleased to see features like Sort and Outline at last, as well as old friends like Jotter and Busy view.

It's very evident when browsing through the EPOC Release 5 software that there's a truly huge amount of functionality available 'out of the box'. On the software side at least, the Series 5mx is still a world leader.

Pete Sipple

Psion Series 5mx

From: All Psion dealers

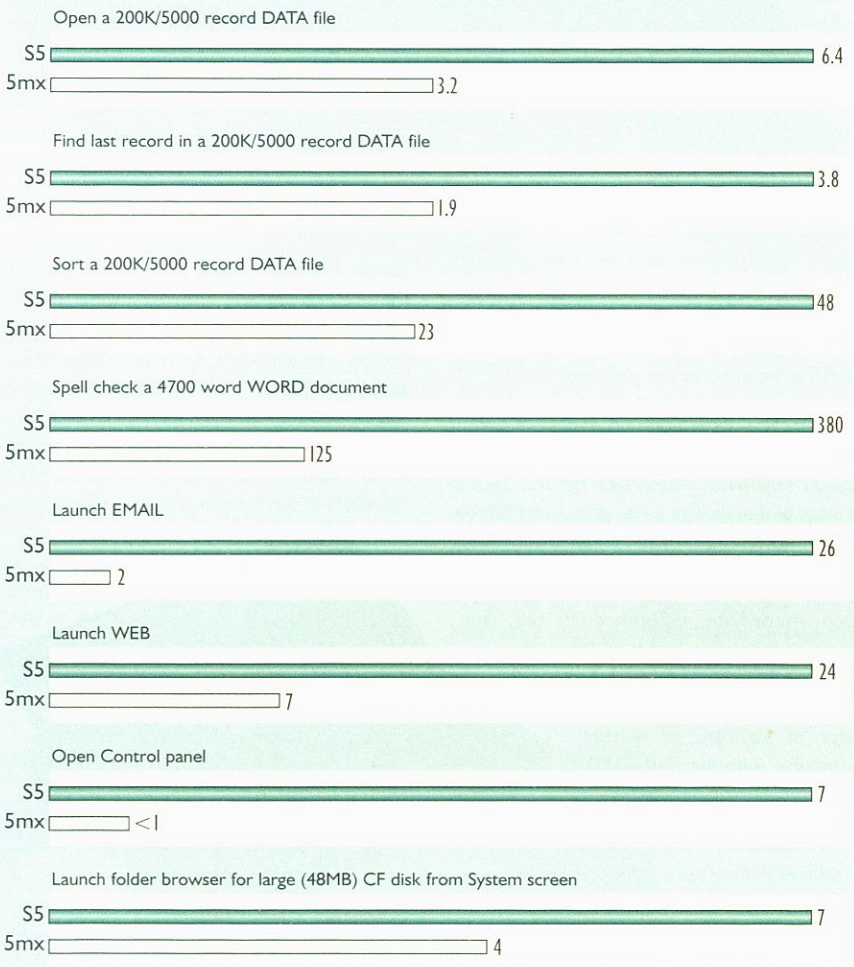
Availability: English version Early July, with German, French, Dutch, Belgian, Italian, Spanish and Nordic variants within 2 months.

Price: £429.99 inc. VAT

Quality	★★★★☆
Value	★★★½☆

Series 5mx benchmark tests

- All comparisons with 1.01 ROM version Series 5
- All times in seconds, shorter bars are better



Ericsson MC218

The first EPOC machine to appear from one of Psion's Symbian partners, the Ericsson MC218 is, to all intents and purposes, an enhanced Series 5mx. It sports the same processor, RAM and much the same built-in software, plus a few additional programs designed to better integrate the product with Ericsson's range of mobile phones. The machines are actually manufactured by Psion, under license.

5mx in disguise?

The MC218 is supplied with a two-tone hard backed nylon carrying case, black with pale grey trim and a velcro closure. It has three credit card/business card slots on one side and a large Velcro pad on the other. There's a small elasticated pouch in the spine to house Ericsson's DI27 infrared modem, which is included in the package.

The machine itself is much darker in colour than the 5mx, with a plain plastic battery cover, keyboard edge and record button recess, and a slightly paler grey used for the screen lid and surround. An Ericsson badge adorns the lid, in place of the usual Psion logo.

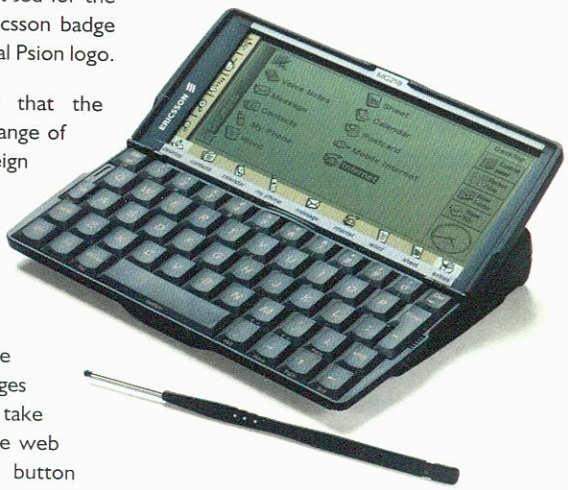
One immediate difference is that the review model also had a wide range of (very welcome) accented foreign characters on the front lower edge of keytops, all quickly accessible with the [Fn] key.

The application icons have been re-worked for the Ericsson machine, with a more cartoon-like appearance. There are some changes too: with an 'Internet' button to take you directly to the Message Suite web browser, the 5mx's 'Email' button renamed to 'Message', 'Agenda' renamed to 'Calendar', 'System' renamed to 'Desktop', plus the addition of 'My phone'. 'Calc' and 'Jotter' are relegated to the Extras bar. The new 'Contacts' application appears just as on the 5mx.

Extra software

Apart from the standard Series 5mx applications, the MC218's Extras bar contains Ericsson's own 'Postcard' software and a 'Setup' wizard to guide you through the process of configuring an Internet connection. Ericsson have also included a free trial connection to their own 'captive' Ericsson Mobile Internet service.

The 'My phone' application allows the transfer of phone book information between the MC218 and the internal phone memory or SIM memory of a compatible Ericsson phone. The software can find, copy, delete, add and edit entries and change the phone's ringing melody directly from the MC218. It can also be used to change the other configuration settings for Ericsson phones, saving

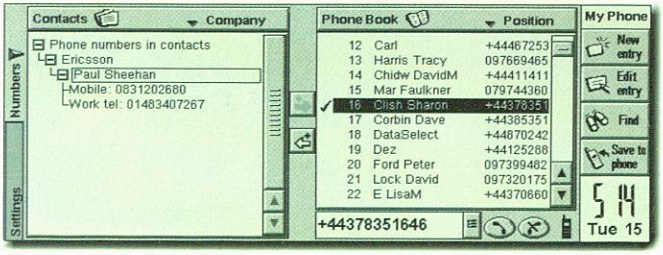


you from endless scrolling through cramped menus on the phone's own keypad. As you'd expect, this feature only integrates with Ericsson phones.

POSTCARD will create and edit digital postcards. It can import images directly from any IrDA-compatible digital camera (or from a file, perhaps on CF disk)—you can then annotate imported photos with POSTCARD's built-in pen tools. Once you're happy with the image, just press the 'Send' button to put the postcard into your email outbox, ready for transmission with all your other messages.

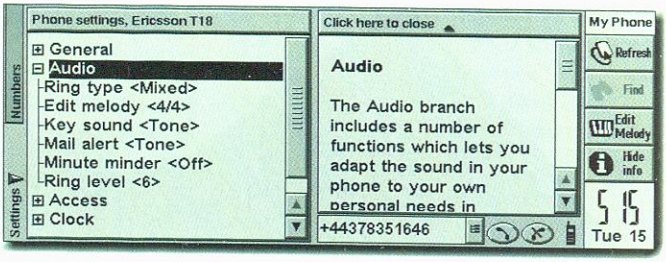
And on the CD...

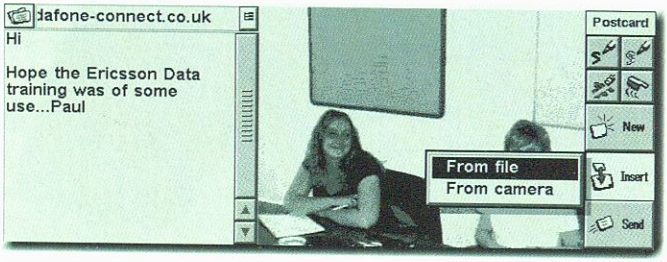
In addition to the items you would expect (EPOC Connect, etc.), Ericsson provide a small suite of companion applications. These include a *WAP* browser, as discussed in Newsreel in this issue. Also, *My Pocket Internet*, a web site subscription service that allows you to partially download web sites on your PC, for later transfer to (and browsing



Managing your phone memory with 'My phone'

You can even adjust the settings of your phone...





Postcards from Ericsson...

on) the MC218. Finally, *My Pocket Documents*, a synchronisation system designed to keep your MC218 and PC in perfect step.

Is it better?

The inevitable question is of course "Is the MC218 a better buy than the 5mx?" The answer depends very much on whether you use (or intend to use) an Ericsson mobile phone with your machine. The inclusion of the DI27 infrared modem (otherwise almost £100) is a useful addition if you have a modem-less Ericsson phone, but is redundant with models such as the SH888, which have one already built into the handset.

Selling mainly through their existing phone dealer channels and backed by Ericsson's substantial marketing muscle, the MC218 mobile 'solution' is one that's well put together and should significantly help the Symbian and EPOC names to grow in markets that have so far been closed to Psion themselves.

Steve Clack

Ericsson MC218

From: Various retail outlets

Contact: Ericsson: 0990 237237
mobile.ericsson.com

Availability: July/August

Price: £479.95 inc. VAT (to be confirmed)

Quality	★★★★☆
Value	★★★½☆

Oregon Osaris

Although not a member of Symbian, Hong Kong based Oregon Scientific have been permitted to use the Series 5's EPOC operating system, under license.

Fit and finish

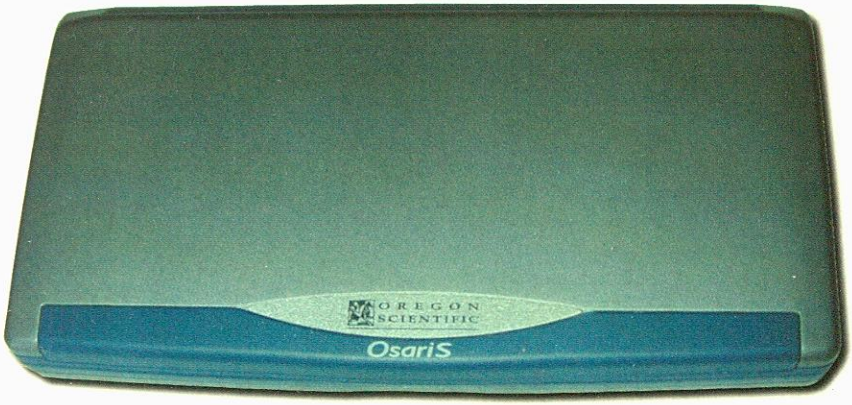
The Oregon Osaris is engineered rather differently to the Series 5/5mx and Ericsson MC218 machines, with a mixed bag of specifications. Externally almost identical in size to the Series 5 (within 1mm in all dimensions), the attractive external casing shares the 5mx's classy silver-grey finish, trimmed with a low-key dark blue around the edges. Opening the machine reveals the same dark blue colour throughout the interior, with a Series 5-lookalike keyboard.

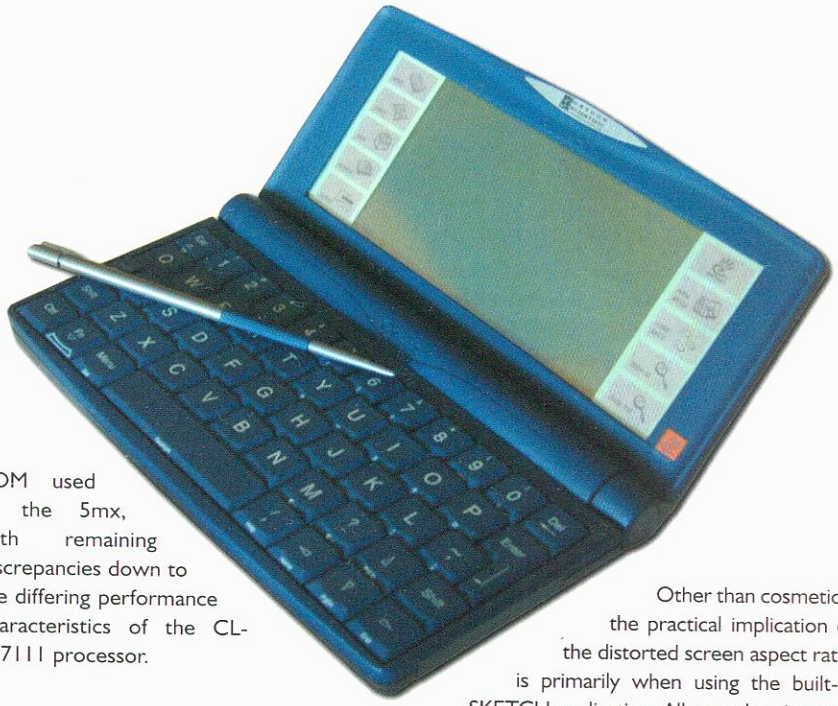
The machine is a simple clamshell design, without the Series 5's cleverly engineered slide-out keyboard. As a result, the Osaris has a bulky hinge mechanism where the application icons usually go, so these have been demoted to two rows of five vertical icons, one either side of the screen. The screen is much narrower than that of the Series 5 (more on that later), so there's plenty of room for the buttons.

The underside of the Osaris reveals a single hinged CompactFlash slot, a lockable cover for the two AA batteries, a Geofox-like backup battery door held in place with a cross-head screw (screwdriver not supplied), a reset button and a stylus. Around the edge of the machine are a hinged cover for the usual Series 5-style RS232 connector, IrDA port and a 4.5 volt AC adaptor socket.

Lurking inside

The Osaris is powered by a CL-PS7111 processor, running at the same 18.432MHz speed as the original Series 5. The built-in software is EPOC Release 4 (version 1.02—a version not seen on any other EPOC machines to date), and the Osaris is available with either 4MB or 8MB of internal RAM. Our own benchmarks showed quite a mix of performance figures, with some tests giving similar execution times to the 1.01 ROM Series 5, and others coming out *faster* than the 5mx. This may be due to the fact that the 1.02 ROM contains most of the application updates and code optimisation of the 1.05





ROM used in the 5mx, with remaining discrepancies down to the differing performance characteristics of the CL-PS7111 processor.

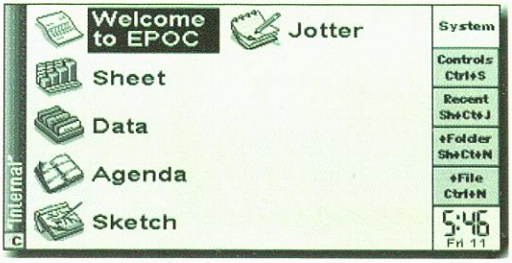
Squashed screen

Despite the relatively impressive performance figures, the Osaris suffers one major quirk of operation, plus a few lesser niggles.

The big bugbear is the screen. At 320 x 200 pixels (rather than the Series 5's 640 x 240) there's less than half the amount of information visible at a given time. Surprisingly that's *not* the problem, as all the built-in applications automatically adjust, wrap and scroll to suit, and they've even managed to shoehorn all the standard menu cards into the narrower screen width. The major problem is that Oregon Scientific have elected to use a screen with pixels (the dots that make up the screen display) that aren't square. The pixels appear 'squashed' so that their height is only around 80% of their width, which makes the whole screen look unnaturally distorted.

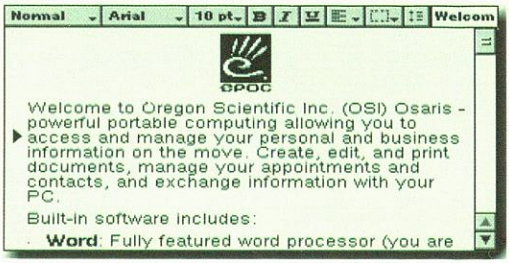
Other than cosmetics, the practical implication of the distorted screen aspect ratio is primarily when using the built-in SKETCH application. All your drawings will appear out of proportion, and holding down the [Shift] key to constrain rectangles to squares and ellipses to squares produces unexpected results. The good news is that all distortions appear only on screen, so your printouts will look just fine. Provided you don't use SKETCH for producing accurate scale drawings (which includes virtually all of us), you'll most certainly get used to this odd screen after an extended period of use.

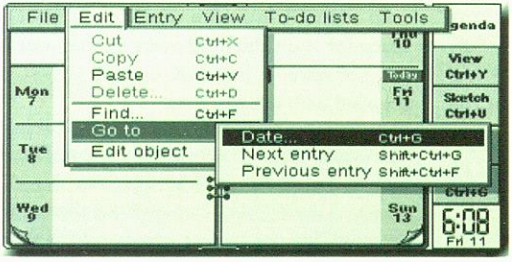
Aside from the screen, the application buttons alongside it work just like those on the Series 5, though the conventional Windows CE-like clamshell casing means that you'll have to hold the machine down while pressing the buttons, otherwise the whole thing falls over backwards. Screen quality itself appears identical to the original Series 5—no better, no worse.



The System screen of the Osaris. Note that the Series 5 style icons on the toolbar have been replaced by text to indicate the corresponding keyboard shortcuts

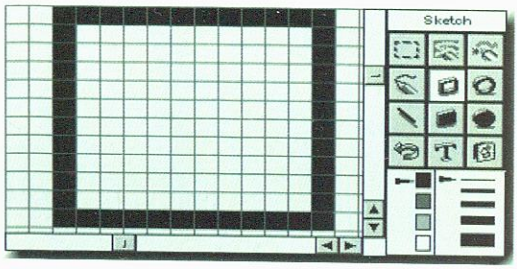
WORD, looking perfectly serviceable despite the smaller screen of the Osaris

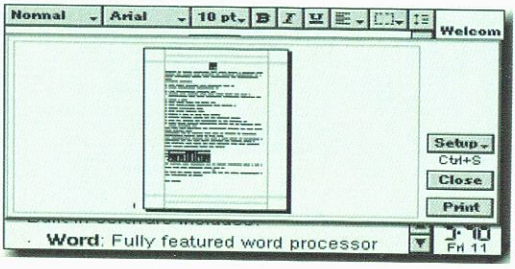

Normal
Arial
10 pt
Welcom
EPOC
Welcome to Oregon Scientific Inc. (OSI) Osaris - powerful portable computing allowing you to access and manage your personal and business information on the move. Create, edit, and print documents, manage your appointments and contacts, and exchange information with your PC.
Built-in software includes:
Word: Fully featured word processor (you are



Those funny looking 'squashed' menus—a trademark of the Osaris' non-square screen pixels

Non-square pixels produce non-square squares and elliptical circles! The black outline shown here is actually a SQUARE—count the pixels...





Page preview of an A4 sheet. Don't worry—everything will print out just fine

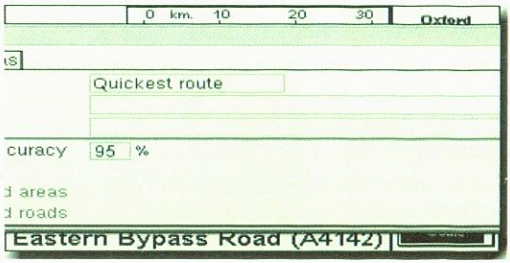
On the pre-production machine used for this review the stylus was rather flimsy, the (slightly elongated) keys had marginally less travel than the Series 5 keyboard, and less positive tactile feedback to confirm that the press was successful. Oregon Scientific state that both of these issues will be addressed on the final production machines. We'll be confirming these points in a supplementary review of the production units in the next issue.

Solid software

The 1.02 ROM of the Osaris houses all of the built-in software of the 5mx, apart from the dedicated CONTACTS application and Message Suite Internet software. There's no reason why Message Suite can't be loaded onto the 8MB machine (there's not enough space for it on the 4MB variant), and indeed this software is included on the CD-ROM supplied with the machine.

The cut-down screen size of the Osaris means that most programs written for the Series 5 will run, but will appear with cropped screens—most often making them unusable. Some programs work fine (most commonly those that don't rely on a specific screen size), and most can be adapted, though the big question is how many software developers will take the trouble to do this. It's certain that other EPOC machines will appear with different screen sizes as more manufacturers adopt the platform, and major software houses such as Palmtop BV and Purple Software have already pledged to adapt their software to the Osaris' screen.

Trying to run Palmtop BV's Street Planner on the Osaris—cropped screens and no success...



We'll be giving the Osaris a more long-term test and reporting on it in the next issue, at which point we'll publish a more detailed compatibility list for other programs. For the time being, it's difficult to recommend the Osaris to anyone with an *immediate* need for add-on software. It's important to note that even if the 'major' commercial software developers all embrace the Osaris' screen size, most of the many hundreds of shareware and freeware programs so important to many Psion users will remain unusable.

Conclusions

Despite the screen and add-on software compatibility criticisms, it's most important to consider that the Oregon Osaris is quite clearly built to a price. The screen is something of a compromise, and weighing in at around 47g less than the Series 5 the whole machine feels just that little bit less solid. With street prices of the 4MB machine likely to dip below £200, you can potentially get yourself *two* Osaris machines for less than the price of a 5mx. With virtually all the built-in functionality of the Series 5 range this is an immensely powerful little computer at a very low price. You have a full suite of powerful multi-tasking business applications available at the touch of a button, with full PC-connectivity out-of-the-box.

It seems such a pity that Oregon Scientific have sacrificed compatibility with third-party software by opting for a smaller screen, but the machine's design runs deeper than that. A wider screen would probably have made it necessary to move the application icons elsewhere, thus requiring the change to a more esoteric Series 5-like design and an accompanying increase in costs. Ultimately the Osaris is, like virtually everything else in the computing world, a trade-off between functionality, build quality and price. For anyone wanting EPOC power on a tight budget the Osaris is well worth a look.

The Osaris comes with *EPOC Connect* (PsiWin 2.2), and will be available from the end of June in an English language variant, with rollout of German, Italian, French (and possibly Spanish) models within a few months.

Steve Clack

Oregon Osaris — Advance preview

From: Various retail outlets

Contact: Oregon Scientific: 01628 826688

Availability: June-Aug. (see paragraph above)

Price: £219.99 inc. VAT for 4MB machine, £279.99 inc. VAT for 8MB

Quality	n/a (pre-release model)
Value	n/a (pre-release model)

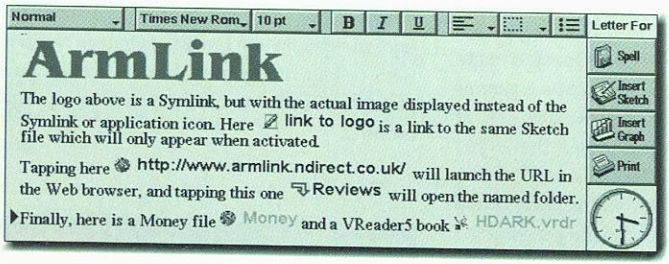
Symlink

One of the biggest improvements in the operating system of the Series 5 is the ability to embed files inside each other. That means you can put a SHEET document, a SKETCH file or a sound clip inside a WORD, DATA or AGENDA file, for example. That really revolutionised my Psion use, allowing me to build graphs and tables into printed documents. *Symlink* takes this further by letting you use linking or embedding in a huge range of documents.

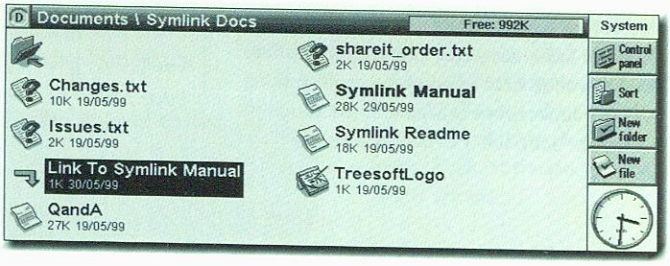
The distinction between linking and embedding is very important: *embedding* one document in another is what the Series 5 already does, building all the embedded segments into one large file that can be transferred between machines and still behave in exactly the same way. This means that I can beam an illustrated report between two machines and it will look exactly the same on both. *Linking* the same files would leave them all separate, but with a relationship established between them. The most obvious consequence is that the same file can be linked to by many others, so you can simply refer to a logo, graph, or other regularly-used object without having to store a separate copy in each file.

Linking can save a lot of storage space on your machine and would make Symlink worth a look even if that was *all* it did—but it is capable of far more.

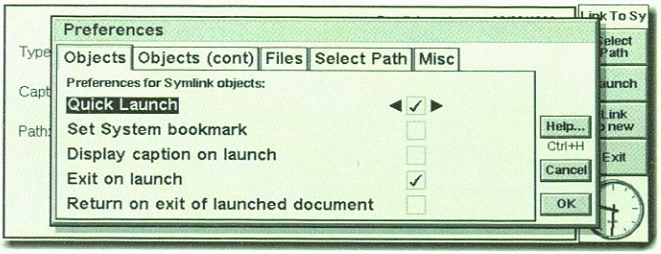
Symlink will integrate files into each other, but it can also integrate them into the System screen, rather like shortcuts in Windows on a PC. This feature means that it can replace some of the functionality of other third-party applications like *ExtraBars* or *Marker*. In fact, if you had a folder consisting of Symlink links to key applications and files, and bookmarked it with [Shift]-[Ctrl]-[B] so that pressing [Ctrl]-[B] went straight to it, you could use that folder as a special 'launch pad' area. Any file that can be launched from the System screen can also be launched by Symlink.


Normal
Times New Rom
10 pt
Letter For
ArmLink
The logo above is a Symlink, but with the actual image displayed instead of the Symlink or application icon. Here link to logo is a link to the same Sketch file which will only appear when activated.
Tapping here http://www.armlink.ndirect.co.uk/ will launch the URL in the Web browser, and tapping this one Reviews will open the named folder.
Finally, here is a Money file Money and a VReader5 book HDARK.vrdr
Spell
Insert Sketch
Insert Graph
Print

A WORD document with links to different files



A Symlink on the System screen



The 'Quick Launch' entry in the preferences menu

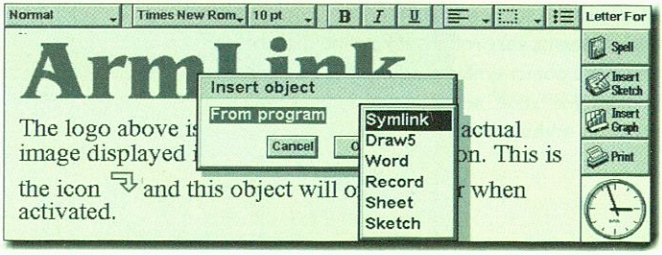
Given that these links can be to files, email addresses, web URLs or other folders, it provides an excellent way of setting up a central control folder for everything you need to do. Certain other programs allow some degree of linking, but I've not seen anything that is anywhere near as powerful or flexible as this. Symlink can turn your Series 5 into one whole hyperlinked system if you want it to, although I suspect that most people are likely to use it primarily for launching from the System screen and for file integration. It's certainly worth experimenting with the possibilities and giving your imagination a little free rein before settling down to a fixed pattern of use.

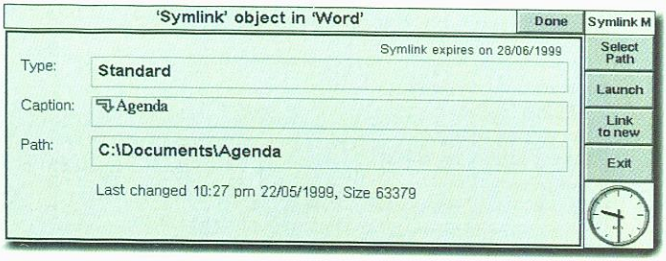
The program's accompanying WORD files are well worth reading to explore some of those ideas. One of them is the manual, which I found to be one of the clearest and best-written explanations of any piece of shareware I've seen. That's a key point as it takes a while to understand how to use the application.

When you go to the 'Insert object' or 'Insert other object...' menu in an application, 'Symlink' becomes the top choice shown in the dialog box. Selecting Symlink then takes you to the same screen that appears if you launch Symlink directly from the Extras bar, letting you choose which file you want to link to. That's the point at which you decide the type of link:

- *Standard* - any file.
- *Folder* - providing a way to go to the System screen view of a specific folder.
- *URL* - launching the Psion web browser with the given URL.
- *Email address* - launching the email part of Message Suite with a new message addressed to that recipient.

Inserting an object





Setting the object type

Those are extremely powerful options, and there are only two real downsides to this:

1. The speed of launching can be a little slow at times.

2. There's currently no way to convert the complete document with the linked files when transferring to a PC with PsiWin.

The first problem is down to the extra layer of sophistication that Symlink adds to the operation, and the second is due to difficulties in getting the necessary information to make PsiWin do the conversion.

Symlink is not really a stand-alone application, but is more like a modification to the Series 5 operating system. It can be run directly from the Extras bar, though that is not generally the best way to use it. I confess that I have a tendency to ignore instructions until I get stuck, and in that spirit I initially tinkered around with Symlink and didn't get very far. It wasn't until I read the manual that I realised just how powerful this program is and how to get the best from it. Even now, I've really only skimmed the surface of it. It has huge potential and seems very robust. If you find that the Series 5's object embedding doesn't quite do enough for your needs, then Symlink will probably address them.

Symlink is supplied as a standard SIS file, and can be evaluated for 28 days. After that time it will need to be registered.

John Woodthorpe

Symlink

From: Treesoft
(dspace.dial.pipex.com/j.forrest/treesoft/symlink)
Availability: now (English)
Runs on: Series 5 and compatibles
Price: US$27 / £14

Quality	★★★★☆
Value	★★★★☆

SafePlace

Your Psion is ideal for storing such confidential information as credit card PIN numbers, software registrations, insurance policy details and passwords. However, until now there's been no convenient one-stop solution for managing this information. DATA files can't be password protected, password protected WORD and SHEET files aren't totally secure (information within them isn't encrypted), and the system password can't be relied upon if the data is held on CF disk.

You can use an encryption utility, but these tend to be a bit slow and complicated. Enter Palmtop BV with *SafePlace*, an application designed exactly for this purpose.

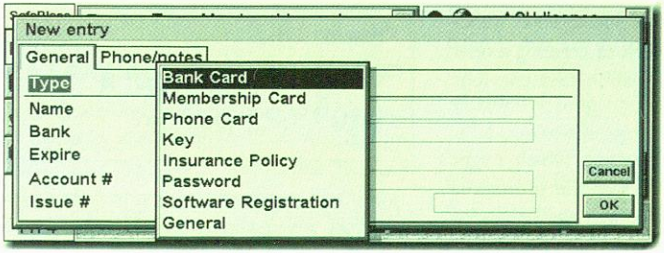
Previously known as *DataSafe*, Palmtop BV have recently renamed the program to prevent confusion with an unrelated product.

When started for the first time, SafePlace greets the user with a password entry and confirmation dialog. Beyond this the interface is remarkably similar to DATA. There's a comprehensive help file included, but SafePlace is so easy to use that I never needed it.

Entries can be specified as one of eight predefined types, with input fields changing according to the entry type selected. Unfortunately, there's no provision for defining new entry types, nor is there any way to customise these predefined types, which I found a bit limiting. However, the included types should meet the needs of most people.

Entries can be viewed in either a list or card view, sorted in ascending or descending order and filtered by type (sorting is automatic, can't be turned off, and is only done on the NAME field). Swapping between views is done in a non-standard manner using [Shift]-[Ctrl]-[C] or [Shift]-[Ctrl]-[L] rather than the more usual [Ctrl]-[Q], as used by the built-in applications.

The initial password entry screen



Making a new entry

The card view

The usual scroll bars are present, and navigation between entries is accomplished either by using these or the arrow keys as one would with DATA.

There are a few oddities that become apparent when navigating, but they aren't intrusive, and searching is quick and effortless. One particularly useful feature is that an expiry date can be set for most entry types. A warning will then flag up at a definable point before the item is due to expire—useful for all those damned insurance policies.

There are some other nice touches, including Palmtop BV's trademark ability to swap the toolbar between left and right sides of the screen—appreciated by left-handers like myself.

The password implementation has been done well—it is requested not only when starting the application, but also after turning the Psion on, after switching to other applications, and after viewing the help, if configured for 'spot checks'. Another feature I liked, and one which I would love to see incorporated within DATA, was the 'Duplicate entry' function. This made light work of creating a new entry with similar information to a previous one.

I have a few extra criticisms which might seem harsh (considering that the product is free of charge), but SafePlace has omissions which tarnish what would otherwise be an excellent piece of software. Firstly, there is no text import or export function, which means that existing data has to be typed in afresh—tedious if one has an existing database. Secondly, there's a limit of only one SafePlace file per machine, and thirdly there's no print function.

In summary, SafePlace achieves what it sets out to do, providing a convenient and secure means of managing sensitive data. Hopefully the authors will address the shortcomings, but meanwhile it's polished, easy to use, and intuitive. Palmtop BV deserve credit for providing such a genuinely useful utility for free.

Nigel Wright

SafePlace

From: Palmtop BV
(*www.palmtopsoftware.com*)
Availability: now (English)
Runs on: Series 5 and compatibles
Price: free

Quality	★★★★☆
Value	n/a (FREE)

Inside CompactFlash

Everything you ever wanted to know about your CF disks, including how (and how not) to use them...

by Nigel Wright

The Series 5 broke new ground in 1997 with the adoption of a single Type I CompactFlash (CF) slot for memory expansion, instead of Psion's proprietary Solid State Disk (SSD) as used in the Series 3 range. Some users complained that Psion's decision made their SSDs redundant, but this was a move that Psion really had to make. When SSDs were designed there was no widely available storage media suitable for portable devices, but technology has since moved on. The emerging CF standard promised larger capacities at lower costs, using an accepted architecture. CF is now used by a variety of palmtop computers, digital cameras, pagers, and a host of other electronic devices.

The Compact Flash Association

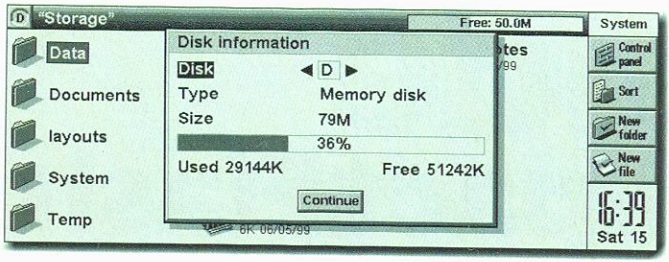
CF cards are designed and built to guidelines laid down by the Compact Flash Association (CFA). The CFA is a non-profit making organisation aimed at promoting the use of CF as a worldwide standard for portable digital data storage. It comprises a number of companies such as 3Com, Canon, SanDisk, Hewlett Packard, and Hitachi. The CFA aims to promote adoption of CF as an open standard, and ensure compatibility for users. The benefits for Series 5 users are low costs and portability across other systems. Further official information can be found at *www.cfa.org* .

What is CompactFlash?

Presently there are two types of CompactFlash: Type 1 and the physically thicker Type 2 (5mm instead of 3.3mm). The Series 5 and 5mx will accept only Type 1.

CF utilises a type of memory chip called 'flash'. Flash is non-volatile in that it doesn't need a battery to enable it to retain data when power is removed. This makes flash reliable for long term storage and enables it to be power-efficient.

Of course, Psion SSDs used flash years ago, but the main difference between CFs and

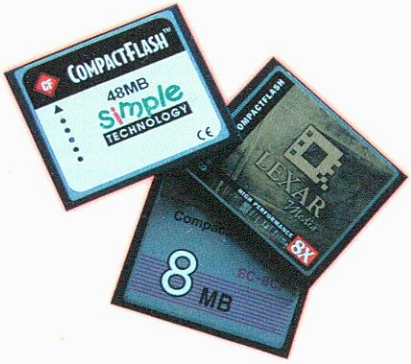


Lexar 80MB CF disk properties from the System screen [Shift]-[Ctrl]-[K]

SSDs is that space taken up by deleted data on a CF is recovered immediately for further use. In contrast, with Psion's SSDs it's necessary to reformat the entire disk before the space can be recovered. This allows CF to be used like a desktop computer's hard drive. However, unlike a hard drive, CF is 'solid state', i.e. it has no moving parts, and therefore it is much more rugged and power-efficient.

Whereas the Series 5's internal memory can be used to run applications and store files, CF can only be used for storage—it cannot be used as 'system memory'. It *doesn't* allow the user to run more applications.

CF is now available in various sizes up to 128MB (at the time of going to press).



Widespread acceptance has enabled manufacturers to produce in volume, which combined with competition has resulted in a steady drop in prices. Some 64MB CF disks can now be obtained for less than the price of a 4MB SSD, and this has had a dramatic impact upon the type of applications available for the Series 5. Palmtop BV's *Street Planner 99*, with its huge data set, would've been unthinkable on the Series 3 range.

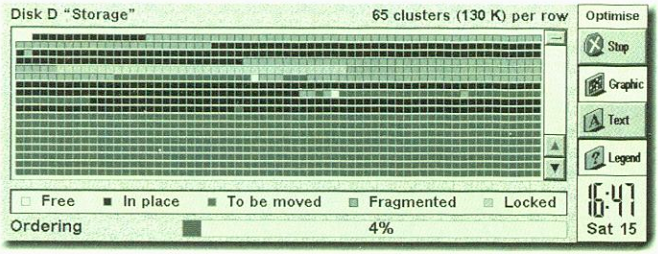
What are the benefits of CF?

- Low cost.
- High capacity.
- Standard architecture—portable across different palmtops/digital cameras, etc.
- Robustness (physically and electronically), with no moving parts.
- Small size.
- Power efficiency.

CF Maintenance

CompactFlash is very robust because it has no delicate moving parts. However, it does benefit from occasional maintenance. Once in a while files can become corrupted and fragmented, file allocation tables can get damaged, file sizes can be misreported and so on. The most common reasons are power

'Optimise' at work...



glitches, media ageing or defects, or buggy software.

Psion didn't include any software tools in the Series 5 for the maintenance of CF, other than a facility for formatting, but Atelier addressed this with the introduction of their *Essential Disk Utilities* (EDU) package. EDU is a suite of four tools:

1. **Optimise** (a defragmentation tool).
2. **CheckDisk** (a disk checker, similar to Microsoft's *Scandisk*).
3. **SmartFormat** (designed to format disks).
4. **DiskEditor** (allows the user the edit and view a disk's contents at a low level).

A review of Essential Disk Utilities appeared in issue 18 of *Palmtop*. Readers might wish to refer to this or to Atelier's web site (*www.atelier.tm*) for additional information. Here's how EDU can be used to look after CF disks:

Optimise: fragmentation occurs because computers save files in the first bit of free space they find on a disk. This means that a file might actually be broken up across the surface of disk—resulting in a time penalty when an application tries to load the file, because it has to go to several locations in order to retrieve the whole thing. Fragmentation gets worse as the disk has files added to it and others deleted.

Defragmentation tools attempt to overcome this by rearranging the order of files and free space. They reassemble fragmented files, gathering them together into one solid area. After defragmentation, the free space should also be in a single continuous block.

Fragmentation on a PC can have a serious effect on performance. On the Psion things are different because there is no physical read-write head that has to move from one location to another in order to retrieve file fragments.

I ran a test using *DiskBench v1.1* (a disk speed benchmarking tool for the Series 5 available from the Internet) on a Lexar 80MB CF, which was fragmented by 11%. I measured the average write time as 12.83 seconds before optimisation, and 13.17 seconds after—marginally *slower* than before the optimisation! It's possible that Optimise will have a beneficial effect with higher levels of fragmentation, but I have yet to see any performance improvement from using it.

CheckDisk: examines the CF disk for problems with file allocation tables, folder and file structures, media descriptors, and for lost clusters (where data doesn't appear to be correctly mapped to files or folders). Some members of the *Palmtop* team have reported excellent success when running CheckDisk on disks that have previously shown errors.

Size matters - cluster sizes and wasted space

Just like a PC's hard disk, a CF is divided into *clusters*. When a file is stored on a CF, it's done across a multiple of clusters. For example, let's assume that the cluster size is 1K (1024 bytes), then a 4K (4096 byte) file will occupy: **4096÷1024 = 4 clusters**.

Problems can occur when many small files are stored on a disk with large clusters, e.g. 8K (8192 bytes), because no matter how small the file is, it will occupy *at least* one cluster, so the 4K (4096 byte) file now occupies a space of 8192 bytes, leaving another 4096 bytes of wasted space. The problem is exacerbated because cluster size increases with CF capacity, so if there are many small files on a high capacity CF disk there can be correspondingly large amounts of space wasted.

The best solution is to reduce the cluster size, which is controlled by the *File Allocation Table* (often abbreviated to *FAT*). Unfortunately, the Series 5's built-in format function doesn't allow this and compounds matters by using a version called *FAT12* instead of the more common *FAT16* used by DOS, or *FAT32* as used by Windows 95/98.

The file allocation table controls the number of clusters on a disk. The table contains a fixed number of entries, one for each cluster on the disk.

So, for FAT12 there is: $2^{12} = 4096$ clusters.

For FAT16 this is: $2^{16} = 65536$ clusters.

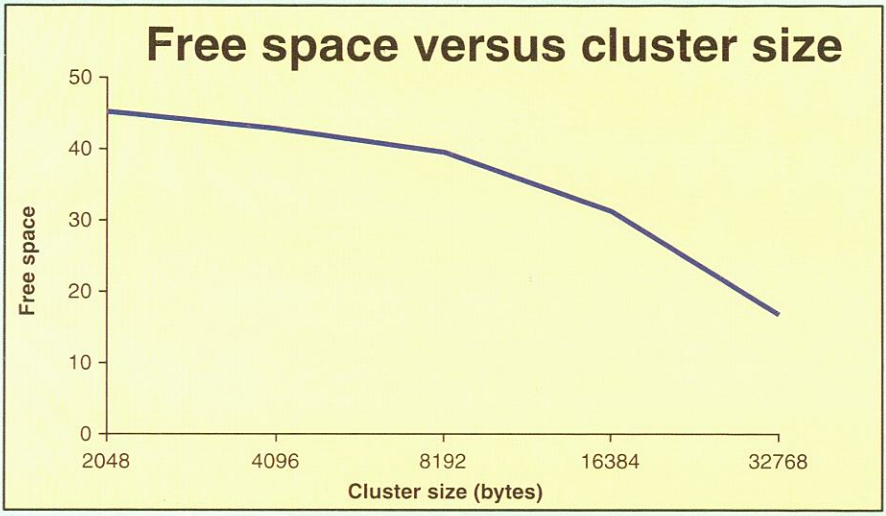
From this you can calculate the cluster size for a particular CF disk by dividing disk capacity by the number of clusters, so for a 32MB CF formatted with FAT12 this is: (32x1024x1024)÷4096 = 8192 bytes (the 1024x1024 comes about because 1 megabyte is actually 1024x1024 bytes).

If the 32MB CF is now formatted with FAT16, the cluster size becomes: (32x1024x1024)÷65536 = 512 bytes.

As mentioned previously, it's desirable to keep the cluster size at a minimum if one is to minimise wastage, so FAT16 is better than FAT12 in this respect. This is illustrated in the table below—note how cluster size increases rapidly with CF capacity. The potential for wastage using FAT12 on a 80MB CF is frightening!

Disk size (MB)	FAT12 cluster size (bytes)	FAT16 cluster size (bytes)
2	512	512
4	1024	512
8	2048	512
16	4096	512
32	8192	512
48	16384	1024
64	16384	1024
80	32768	2048

Note that the DOS filing format limits the minimum cluster size to 512 bytes, and cluster sizes can only be in multiples of 512 bytes). I performed some experiments with varying cluster size on an 80MB CF (see the section called 'Setting cluster size using Windows 95' on page 55.

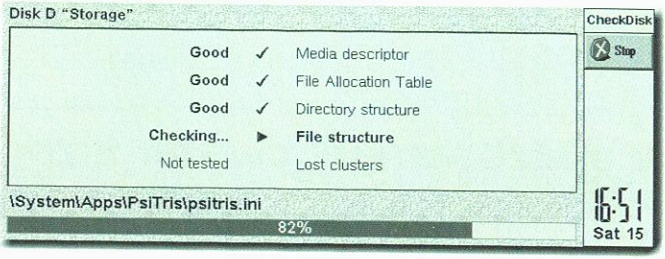


(The figures above were obtained in Windows 95 Explorer by right-clicking on the disk and selecting PROPERTIES from the pop-up menu.)

So, it can be seen that selection of cluster size is very important to the efficient use of CF space. However, there is a downside to using smaller clusters. Small clusters mean *more* clusters, which in turn affects performance by reducing the write speed (see performance data table) because the disk controller has to address more of them. Psion's choice of FAT12 might seem odd at first, but at the time the choice was made high capacity CF disks weren't available, and FAT12 offered a reasonable compromise between space efficiency and speed.

A space saving tip

If you are unable to adjust cluster size on a CF then consider merging all your old WORD, SHEET, and SKETCH files into a single DATA file as described in *Palmtop* issue 22, page 19. This will reduce wastage by reducing the number of small files on the disk. Another effective method is to simply create one large zipped archive file using RMRZip.



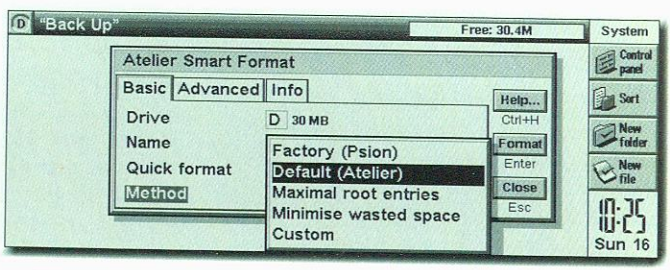
CheckDisk at work

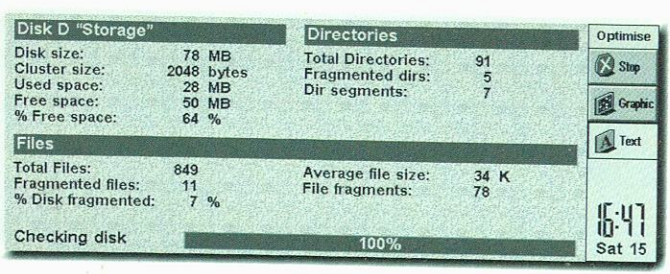
SmartFormat: is designed to format internal or CF disks. It has the ability to adjust cluster sizes for more efficient use of disk space.

SmartFormat overcomes the limitations of Psion's standard *FAT12* filing format by allowing the user to specify a number of formatting options. By specifying the 'Minimise wasted space' option I was able to reduce cluster size to 512 bytes on an almost full 32MB CF disk, with the attendant benefits as highlighted in the boxout on page 52. Before formatting there was about 3MB free, afterwards there was more than 7MB free. A colleague performed a similar operation on a 48MB disk containing over 15,000 files, and successfully increased the available free space from an original 6MB to over 18MB—a 25% saving!

SmartFormat has many formatting permutations, so you'll need to experiment with the various options if you want to use every megabyte of space. The optimum method will depend upon the size of your disk, the number of files it contains and the sizes of the individual files. Don't forget to back up

SmartFormat's formatting options





Optimise showing formatted cluster size of a 32MB disk after selecting 'Minimise wasted space'

Hints when using CF disks

- CF is reliable, but back up regularly—something you should do whatever the media.
- When working on vitally important documents you may wish to keep another copy on the internal drive, for complete peace of mind.
- Don't perform saving operations to CF if your batteries are getting very low.
- Don't ever remove a CF that is in the process of being read from or written to.
- Don't permanently remove a CF when files on that disk are still open—close them first.
- If you have a large disk then you may be able to increase its effective capacity substantially by using Essential Disk Utilities to optimise cluster size.
- CF can be backed up and restored at very high speed in a laptop's PCMCIA slot when using the appropriate adaptor. Expect a data transfer rate of around 2MB per second!

the data from your disk first, as SmartFormat will erase the entire contents, just like Psion's own formatting option.

Another useful feature of SmartFormat is the ability to perform quick formats, which are done in a fraction of the time required by the Series 5's built-in function.

To summarise EDU, I'm not convinced of the value of Optimise, but if you're running out of space on your CF disk then EDU may be worth the money for SmartFormat alone. Using it may free up megabytes of space, thereby staving off purchase of a larger disk. Otherwise, if you've got a laptop with Windows 95 OSR2 then read on and consider buying a £10 PC-card/CF adaptor instead.

Setting cluster size using Windows 95

An alternative way to adjust cluster size is to insert the CF into an adaptor in a laptop's PC-card slot and use Windows 95 OSR2's FORMAT /z:n x: command, where n sets

Hints when buying CF disks

- Try to obtain a guarantee of compatibility with the Series 5, as some disks refuse to work. If possible, buy from a dealer who also sells Psions.
- Shop around, as prices vary wildly. Mail order, especially over the Internet, seems to offer the lowest prices.
- When buying via the Internet, especially from overseas, be aware that you may be liable for high shipping costs, tax and import duties which might not appear in the quotation.
- Buy the largest disk you can afford—you'll always use more space than you'd imagine.
- Contradicting the above, avoid buying the latest and largest available as you may be paying a premium. Wait a month or two for prices to come down.
- CF performance is very similar across brands and capacities (using the standard Psion FAT12), so disks should be selected on the basis of how much storage one gets for a given price.
- Buy with a credit card if possible—they often offer insurance if anything goes wrong.

the cluster size in multiples of 512 bytes i.e. **n x 512**, and x is the destination drive.

For example, to format, with a 2KB cluster size (2048 bytes) and the CF in the PC's drive D: type the following in the Windows 95 RUN dialog box: **FORMAT/z:4 d:**

Although this worked on my Lexar 80MB disk using a 2KB cluster size, it may not work for all disks. Make sure you back up your files before trying this technique.

Performance

I did some tests to check CF read/write speeds using *DiskBench 1.1*.

From these results it can be seen that read times are virtually the same for all disks, while write times differ slightly. In day-to-day use this isn't likely to be noticed. I timed how long it took to save real files to disk—this confirmed that there was no discernible difference in write performance between different makes and sizes of disk (when formatted using the standard FAT12 system), the notable exception being the Kingmax, which was about twice as slow.

Acknowledgements:

The following dealers kindly supplied CF disks for review:

Clove Technology: 01202 302796
www.clove-tech.co.uk

Exportech: 01202 422 570
www.exportech.co.uk

Expansys: 0870 601 0141
www.expansys.co.uk

Mobil-IT: 0181 657 3220
www.mobil-it.co.uk

Some frequently asked questions

Can I store applications on CF and run them from CF?
Yes—most properly written applications will allow installation to CF.

Can I move applications over to CF?
Usually. Simply cut and paste the appropriate application folder from \System\Apps on one disk to another. A safer method is to uninstall an application (using 'Add/Remove' in the Control panel) before re-installing it onto the disk.

Does CF increase battery usage?
During write cycles there is a large increase in power consumption. During read cycles there's also some increased (but negligible) consumption.

Can I store data on CF?
Yes. Just save to disk 'D' instead of 'C'.

Are all CFs compatible with the Series 5?
Usually, provided they're 'Type I' rather than 'Type II'. Check with the reseller for compatibility.

Does a CF disk have a limited lifetime?
Yes—sometimes quoted at around 100,000 format cycles, which usually equates to many years of use.

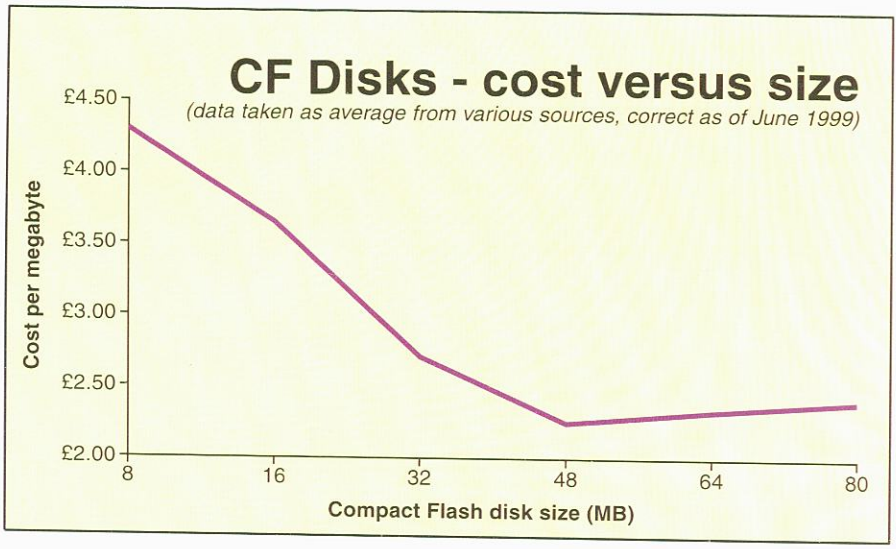
Is it possible to protect the content of CF from prying eyes?
No. Individual files can be password protected as usual, but the disk itself cannot.

Is there a right or wrong way to insert a CF disk?
Yes—they have a lip along one edge. When the disk is inserted the connector must face into the slot and the lip must face outwards—it's there to help you extract the CF disk later on.

Can I use a CF disk in my laptop?
Yes, if you have a PC-card slot and a suitable adaptor. Be sure to only insert and remove CF disks when the laptop is switched off. Windows 95/98 will treat the CF as just another disk drive.

I have a 32MB CF disk, but the Psion reports that the capacity is only 30MB. Why?
This can be caused by the use of certain cluster sizes.

How long can data be stored on CF?
A figure of 10 years is often quoted.



Disk type	Standard Psion format		Formatted with EDU FAT16	
	Average write time (seconds)	Average read time (seconds)	Average write time (seconds)	Average read time (seconds)
Internal (C: drive)	0.56	0.31	0.56	0.31
Simple Technology 8MB	5.21	1.60	7.65	1.63
KingMax 16MB	15.1	1.58	20.6	1.64
Simple Technology 16MB	4.86	1.60	10.06	1.64
Hitachi 32MB	5.27	1.60	15.74	1.64
Lexar 32MB (x8 speed)	4.89	1.58	14.68	1.62
Simple Technology 32MB	5.04	1.60	15.78	1.64
Lexar 48MB (x4 speed)	7.53	1.60	15.23	1.63
Simple Technology 48MB	4.78	1.60	12.73	1.62
Simple Technology 64MB	7.67	1.60	17.85	1.62
Lexar 80MB (x8 speed)	4.53	1.60	10.98	1.64

Free Internet
(the Psion way)

A guide to the tricks needed to get your Psion connected to a free Internet service

by Paul Nelson

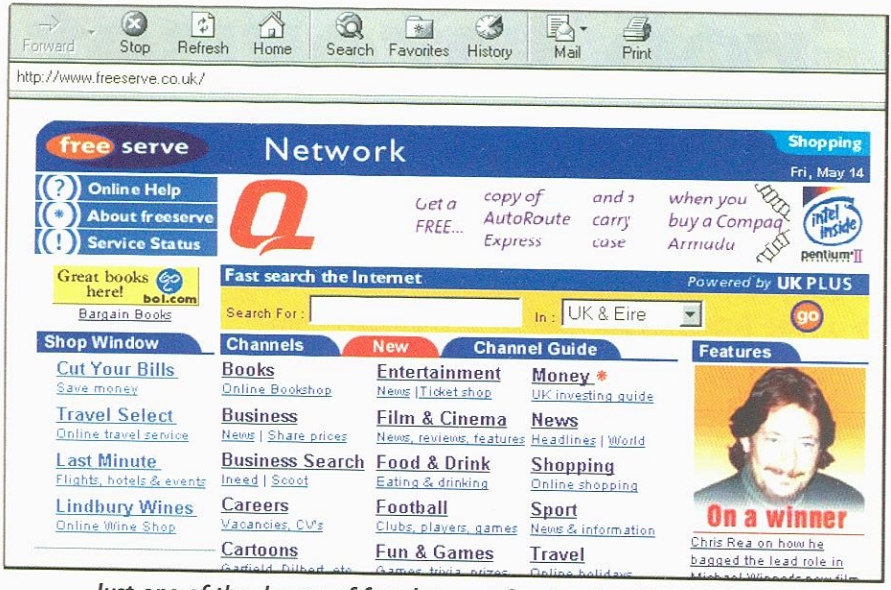
It can't have escaped most people's notice that Internet access in the UK has been getting a lot cheaper recently. Yes, you still need to buy a modem of some kind, plus a phone connection or GSM mobile phone, both of which have associated costs, but most Internet Service Providers (ISPs) in the UK are either already free or planning to become so in the next 12 months. So if you don't already have your Psion configured for the Internet, now is an excellent time to get started.

We've covered the hardware issues and basics of configuring PsiMail Internet and Message Suite in great detail in the 'How to connect your Psion to the Internet' series in issues 17-20. If you're unsure about any of the terms used below, I'd encourage you to go back and do some background reading.

Is it really free?

The explosion of free ISPs has come about (in the UK, at least) because they've worked out a way to take a share in the phone connection charges, splitting the cost of the (local) phone call with the telephone company. Unfortunately, the only way to set up accounts with these ISPs is online, using a desktop machine. As usual, it's all Microsoft's 'fault'. When constructing their free Internet Explorer browser, they provided a way for third parties to 'brand' the browser with their own logos, buttons and preferences. The system works so well that when ISPs wanted a quick and easy way to ensure that new users were both set up quickly and exposed to their logo, advertising, etc., a CD-based Internet Explorer installation was the obvious way to go.

All of this is fine if you have ready access to a desktop machine that you don't mind well and truly messing up. The very act of installing a 'branded' browser can play havoc with previously installed software and is something you should seriously seek to avoid. Luckily, there are ways to get signed up with a free ISP without actually installing a branded version of Internet Explorer, or even without owning a PC at all. Once signed up with an account, the user and mail account details can be entered in PsiMail Internet or Message Suite, with all future access to the ISP being via your Psion. Don't be put off by the (usually expensive) help desks at the free ISPs, who will try and assure you that you can't use a Psion with their system.



Just one of the dozens of free Internet Service Providers in the UK

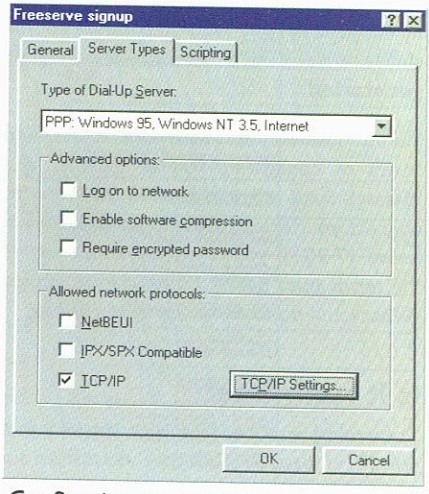
Getting set up

The first step is to get signed up. I'm going to use the example of a Psion Series 5, Windows 95 PC and the *Freeserve* ISP, as that is one of the most common combinations (at least in the UK), though the general procedure will be similar on other systems. The PC doesn't have to be your own—all you need is this article and some borrowed time on a friend's Internet connection.

1. Within 'Dial-Up Networking', double-click the 'Make New Connection' icon. A connection wizard will appear.

2. Name it "Freeserve", then click on 'Next'.

3. Enter the phone number as "0845" "079 66 99". Click on 'Next' again and then on 'Finish'. It's vitally important to use the Freeserve dial-up number for signing up,



Configuring a new Dial-Up connection

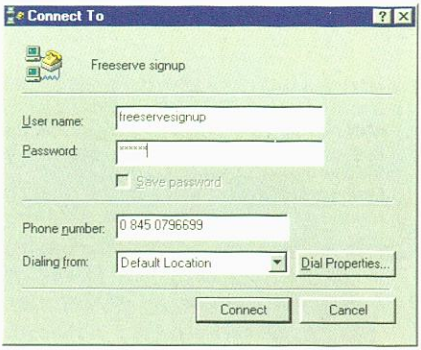
by the way. You can't just use an existing access number and ISP.

4. A new icon should appear in the 'Dial-Up Networking' window. Right click on it and choose 'Properties'.

5. Click on the 'Server Types' tab and check that 'PPP:Windows 95 Windows NT, 3.5 Internet' is selected, and un-tick all the boxes in the rest of the tab except 'TCP/IP'.

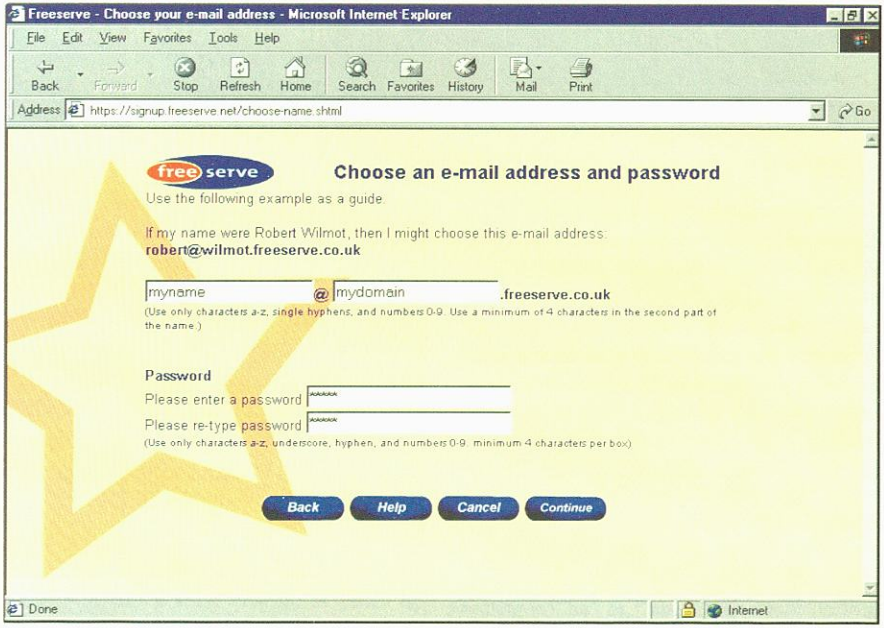
6. Click on 'OK'. You now have a correctly set-up Freeserve Dial-Up Networking connection.

7. Double-click on the new icon to bring up the 'Connect to' dialog. Enter "freeservesignup" for the 'User name' and "signup" for the 'Password' and then click on 'Connect'.



Connecting to the Freeserve access number to sign up

8. Once online, start up any browser that's convenient and go to *https://signup.freeserve.net/* . Notice the extra 's' in the prefix, denoting that the server is 'secure'.


Freeserve - Choose your e-mail address - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Favorites History Mail Print
Address https://signup.freeserve.net/choose-name.shtml
Go
freeserve
Choose an e-mail address and password
Use the following example as a guide.
If my name were Robert Wilmot, then I might choose this e-mail address:
robert@wilmot.freeserve.co.uk
myname
@
mydomain
.freeserve.co.uk
(Use only characters a-z, single hyphens, and numbers 0-9. Use a minimum of 4 characters in the second part of the name.)
Password
Please enter a password
Please re-type password
(Use only characters a-z, underscore, hyphen, and numbers 0-9. minimum 4 characters per box)
Back
Help
Cancel
Continue
Done
Internet

Choosing a user name

Entering the Freeserve mail server settings into Message Suite

9. Freeserve's web site will ask you some questions and then allow you to choose a user name and password. Note that with popular ISPs like Freeserve, many of the obvious names will already have been taken, so the more unusual you make your choices the better. With Freeserve, the user name is broken into two parts, a name and domain. For example, a name of "Paul" and domain of "Nelson", or a name of "PaulNelson" and a domain of "PNElectronics'.

10. As soon as you have your user name accepted, close the browser down and hang up the connection—you've done it. Don't download any extra modules if asked by the ISP.

The above procedure will typically take about 15 minutes to do, if all goes well. Armed with your Freeserve access details you can now go into the Series 5's Control panel and set up a new 'Network' (or 'Internet') connection for Freeserve. Full details of how to do this were in the article referred to earlier. Freeserve user names are typically of the form *mydomain.freeserve.co.uk*, and the mail server details you'll also need will are:

POP3 server: *pop.freeserve.net*

SMTP server: *smtp.freeserve.net*

Your email address for others to send to: *name@mydomain.freeserve.co.uk* .

Armed with this information, it's a fairly simple matter to set up the email portion of Message Suite to send and receive messages via your new Freeserve Internet connection. Although Freeserve (and most ISPs) allow you to have more than one email name per account (e.g. for each member of your family), the mechanics of this are slightly more complicated and we won't go into them here.

Free Internet outside the UK

Although the system of sharing the phone call income between telephone company and ISP is currently unique to the UK, there's no reason why other countries shouldn't see the same phenomenon. Watch out for advertisements in your local newspapers and computer press. Note that some countries (notably the USA) already have free local phone calls, so the system obviously wouldn't work.

Looking ahead five years, I can see the day when both Internet access and local phone calls are free in most countries, with the ISPs making their money through advertising, support calls and electronic commerce deals.

No access to a PC?

If you can't find a friend or colleague with a PC and modem who's willing to loan you time on their machine, don't give up. There are plenty of people in the Psion world who, armed with this article, may be happy to go online for you and set up an account, phoning the details through to you when complete. Expect to pay a small charge, as you'll be imposing on their time and phone bill, but it shouldn't be difficult or costly.

Of course, you may wish to use a different free ISP. Don't worry, the details you need to sign on are usually quite accessible. On the installation CD that you've received (usually in a shop, or free with a PC or Internet magazine), look for small text files with names ending in '.ins' or '.isp'. Open them up in a text editor or word processor and you should

Other 'free' ISPs in the UK

The following information was gathered from others on the Internet. We haven't tested it and take no responsibility for its accuracy. There are many other free ISPs, these are just a small sample.

SoftNet Free
Information: *www.softnetfree.co.uk*
Access number: 0845 120 0101
Signup username: swinternet
Password: signup
Signup URL: *https://signup.swinternet.net*

Free-Online
Information: *www.free-online.co.uk*
Access number: 0845 144 4222
Signup username: signup
Password: signup
Signup URL: *http://signup.free-online.net*

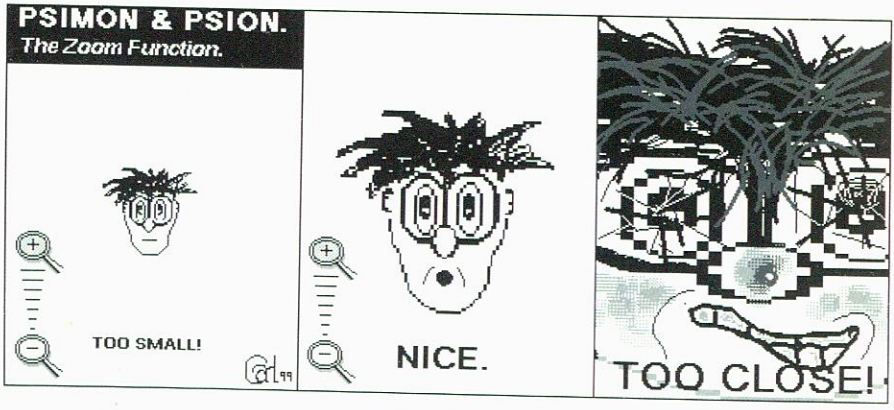
NetDirectOnline (NDO)
Information: *www.netdirect-online.co.uk*
Signup username: register
Password: register
Access number: 0845 079 8226
Signup URL:
http://signup.netdirect-online.co.uk/ie4-win32

Notes: you may also need to specify (in the Dial Up Networking tabs) Primary DNS as 195.7.234.11 and Secondary DNS as 195.7.234.10

be able to spot the vital information you need (access phone number, signup user name and password, secure signup page address) to get to the right portion of the ISP's web site.

Sit back and enjoy...

Once established, and with everything working, note that most free ISPs demand that you connect to the Internet at least once a month. If you fail to do this, there's a chance that they may class you as 'gone away' and cancel your account. Given the usefulness of the system though, I'd be surprised if you connected up less frequently than once per day—you've got the whole Internet to discover!



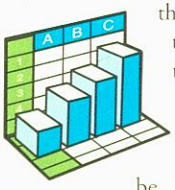
Advanced spreadsheet techniques

Safe SHEET - making sure you use adequate protection in your Series 3 and Series 5 spreadsheets

by Steve Litchfield

As the maintainer of the PocketInfo web site, I'm fascinated by the variety of spreadsheets submitted. Some were obviously knocked up in 10 minutes, whereas others must have taken hours of painstaking work to create.

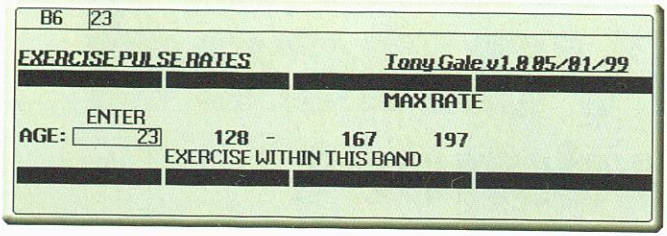
Although so far in this series we've concentrated on some of the clever functions built into most spreadsheets, there's a lot more to a good SHEET file than a mass of seemingly unintelligible formulae. What separates an average spreadsheet from a really good one is often its presentation. I'm not just talking about fonts and shading (although these can help on the Series 5)—I refer to design, layout, security and instructions, all of which apply equally on both Series 3 and Series 5 machines. Good presentation is important, both to help you use the spreadsheet in daily life and also to help those you choose to pass it on to.



Making it foolproof

Given the amount of work needed to compile a spreadsheet, it surely makes sense to spend some time planning and implementing it in an intuitive way. Its function, inputs and outputs should all be obvious to a new user. One glance at the top of the spreadsheet should give the function away, with detailed instructions tucked away somewhere near the bottom, in case further notes are required. The cells where text or numeric input are required should be immediately obvious and sized appropriately, and any output numbers or graphs should be clearly referenced.

Security is also a big factor in making a spreadsheet easy to use. By 'protecting' cells which you don't want to overwrite by mistake, and by leaving unprotected those cells in which you want to type in numbers or text, it's possible to make your spreadsheet



A simple, but wonderfully clear SHEET example

almost as foolproof to use as a dedicated program.

For example

The easiest way to show these characteristics in action is to open up some of the very best spreadsheets available. By examining their layout, design and implementation, you'll hopefully be given enough food for thought to improve your own SHEET documents, perhaps one day sharing them with the rest of the world. Let's start with a Series 3 example, just to show it can be done. Although not possessing most of the fancy formatting capabilities of its larger cousin, all the principles in this article are still relevant.

Safe cells

The *Pulse Rate Calculator* (see screen shot above) is just an implementation of a very simple formula, but the way it's packaged is very instructive. After inputting your age, it calculates the maximum safe pulse rate you should bear in mind when exercising, along with a recommended safe range for effective aerobic exercise. I've positioned the cell highlight on the 'Age:' field, the only cell in the spreadsheet that isn't protected. All other cells bring up a padlock symbol in the top-right of the screen, and attempting to type text into them results in a flashing message 'Cannot modify a protected cell'. Although it's tempting in your own SHEET documents to just set protection on title and result cells as and when you need it, the most flexible approach is to:

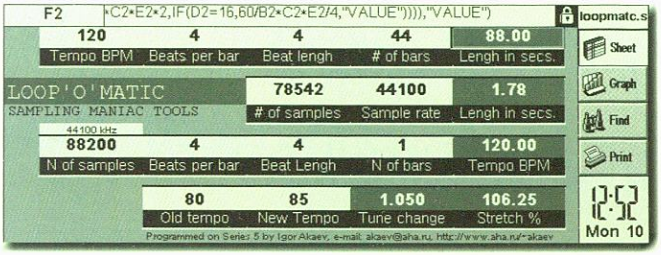
1. Set up and test the spreadsheet completely. Make sure everything works and that nothing's left out.

2. Highlight the entire SHEET and turn protection on (using 'Range | Protection' on the Series 3).

3. Move to the cells and ranges of cells that you need unprotected and individually turn protection off again.

Doing things in this way ensures that no cells remain 'unlocked' through carelessness. It's also a good idea to save the SHEET file with the correct cell highlighted, so the cursor will appear in this cell whenever you reopen it. This will save both yourself and any new users the trouble of locating the right input cell each time you use the spreadsheet.

There are a few other points of note in this Series 3 example. Although limited to different emphases (bold, italics and underline) of the same typeface, it's still a good idea to make use of them to distinguish between titles and body, input and output. The effect is enhanced by turning off the Grid labels and Grid lines (using 'View | Show' in Series 3 SHEET), making the text stand out more.



Good design means never having to say "It's too cramped"

Note also how the calculations behind-the-scenes are performed off-screen, so as not to distract from the really important starting and finishing numbers. Some SHEET authors also like to use the trick of setting the width of columns containing intermediate calculations to zero, effectively hiding them from view. Which method you use depends on the size and complexity of your spreadsheet, as well as your own personal design preferences.

Extending the idea

Along similar lines, but with many more input cells, is *Loop 'O' Matic* on the Series 5 (see screen shot at top of this page), which offers four separate calculations of interest to musicians and studio technicians. This time I've shown the cell highlight over a protected cell so that you can see the padlock symbol for yourself. By the way, notice that in going from Series 3 to Series 5 Psion subtly changed the way protection is applied. When working with SHEET on the 5, I recommend sticking closely to the procedure outlined above, using 'Tools | Protection' and ticking 'Protect worksheet' and 'Lock cells' on step 2. It's possible to get Series 5 SHEET mightily confused by continually playing around with protection and it pays to keep things as simple as possible.

This spreadsheet exemplifies how good design and layout can make a lot of functionality possible on a single screen. Note the absence of scroll bars and the clever use of the Series 5's graphical capabilities to distinguish clearly between calculations, between inputs and outputs, and between numeric cells and their descriptions.

Back to school

Equation Finder (see screen shot at top of next page) takes a very different approach. The process of inputting a few dozen data points, choosing a graph form (quadratic, cubic, etc.) and making sense of the results through coefficients and graphical form is too complicated to fit on a single screen (even on the big GeoFox One screen shown). The author has therefore taken the splendidly logical approach of styling the SHEET as a workbook, with different sections (of a dozen or so rows each) that you work your way through.

For example, the first section is a textual introduction to the spreadsheet. Next you're prompted for the individual data points to be analysed. Thirdly, a list of numbered equation types is presented and you are asked to type in the number for the one you want to use. Finally, the coefficients for the best-fit equation are presented. At each stage, there are instructions, prompts and examples to

The Equation Finder sheet—space and good order in plentiful supply...

B46

	A	B	C	D	E
40		4 Inverse		y=a+b/x	
41		5 Exponential		y= a * EXP(b*x)	
42		6 Logarithmic		y=a+b*LN(x)	
43		7 Power		y=a*x^b	
44					
45	Input Ref number in cell >>>>>>>>	5			
47	Step 3				
49					
50	Coefficients >>>>>>>>>>>>>>>>>>	a	b	c	d
51	See eqn above for format.	2.48	0.12	0.00	0.0
52					
53	Coefficient of Determination >>>>>	0.47547357			
54					
55	Step 4				

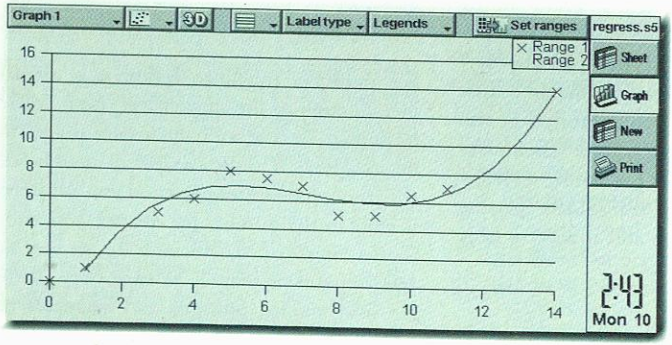
help make sense of all the numbers and symbols, with plenty of empty cells used to prevent the mass of information from making the SHEET too confusing.

Don't let the complexity of the formulae involved here and the impressive integration of the calculated 'best-fit' equation with SHEET's graphing system put you off. Your own spreadsheets will almost certainly be a lot simpler, but the principles of good text prompts and a logical 'flow' will almost always be worth taking into account.

Better than programming?

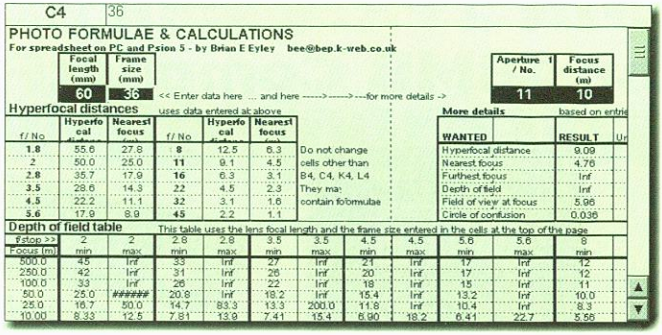
There are many times when a spreadsheet can do a job far better, faster and more cheaply than a specially written OPL or C++ program. Any set of tabular, repetitive calculations can usually be set up within SHEET quickly and easily, *Photo Formulae & Calculations* (see top of next page) being a good example that required only a couple of hours to set up in SHEET. The world of professional photography can become a mathematical nightmare, but this spreadsheet does just about everything needed in under two screens' worth of cell real estate. It goes without saying that, like earlier examples, all non-input cells are protected against accidental overtyping.

Apart from the compact and efficient layout, notice the scroll bar on the right of the screen on the next page. This seems to indicate that,



...with an appropriate graph just a keypress [Ctrl]-[Q] away

How many calculations can you pack onto a single screen?



C4 36

PHOTO FORMULAE & CALCULATIONS

For spreadsheet on PC and Psion 5 - by Brian E Eyley bee@bep.k-web.co.uk

Focal length (mm)	Frame size (mm)		Aperture f / No.	Focus distance (m)
60	36	<< Enter data here ... and here ------> ------> ---for more details ->	11	10

Hyperfocal distances — uses data entered at above

f/ No	Hyperfocal distance	Nearest focus	f/ No	Hyperfocal distance	Nearest focus
1.8	55.6	27.8	8	12.5	6.3
2	50.0	25.0	11	9.1	4.5
2.8	35.7	17.9	16	6.3	3.1
3.5	28.6	14.3	22	4.5	2.3
4.5	22.2	11.1	32	3.1	1.6
5.6	17.9	8.9	45	2.2	1.1

Do not change cells other than B4, C4, K4, L4 They may contain formulae

More details — based on entrie

WANTED	RESULT	U
Hyperfocal distance	9.09	
Nearest focus	4.76	
Furthest focus	Inf	
Depth of field	Inf	
Field of view at focus	5.96	
Circle of confusion	0.036	

Depth of field table — This table uses the lens focal length and the frame size entered in the cells at the top of the page

f stop >>	2	2	2.8	2.8	3.5	3.5	4.5	4.5	5.6	5.6	8
Focus (m)	min	max	min	max	min	max	min	max	min	max	min
500.0	45	Inf	33	Inf	27	Inf	21	Inf	17	Inf	12
250.0	42	Inf	31	Inf	26	Inf	20	Inf	17	Inf	12
100.0	33	Inf	26	Inf	22	Inf	18	Inf	15	Inf	11
50.0	25.0	######	20.8	Inf	18.2	Inf	15.4	Inf	13.2	Inf	10.0
25.0	16.7	50.0	14.7	83.3	13.3	200.0	11.8	Inf	10.4	Inf	8.3
10.00	8.33	12.5	7.81	13.9	7.41	15.4	6.90	18.2	6.41	22.7	5.56

like an iceberg, there is a lot more of the spreadsheet down below. This is due to almost a *hundred* lines of instruction, comment and general notes from the author. Although almost certainly too much for a personal SHEET, this degree of documentation is extremely welcome in a file which (due to its usefulness) will probably be passed around from person to person. With no separate documentation file to lose, every new user will be guaranteed the same explanation and assistance.

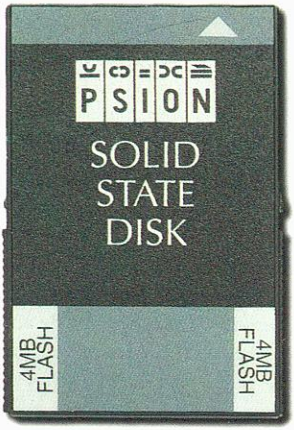
Think of your audience...

Just how many of these ideas you incorporate in your own spreadsheets depends a lot on who's going to use them. If they're just for your own personal use, you can get away with terse prompts, no protection and plain text formatting. After all, *you* know which numbers go where and what it all means. But if you even think there might be a *chance* of passing the SHEET onto a friend or colleague in the future, take a few tips from the experts who compiled the spreadsheets above.

It's back to formulae, functions and fancy logic in the next article, when we'll construct another fully working application using nothing more than SHEET and a bit of lateral thinking.

To find all the working spreadsheets discussed here, together with many more, visit the PocketInfo web site at *www.pocketinfo.org* .

WIN a FREE 4MB flash SSD or 48MB CompactFlash!!



Whether you're a Series 3 or Series 5, you can expand the capacity of your Psion computer by winning either a Psion 4MB flash SSD or a Simple Technology 48MB CompactFlash—you choose which prize you want.

Just answer the three questions (below), and send your answers on a postcard to Palmtop Publications, PO Box 188, Bicester, Oxfordshire OX6 0GP, ENGLAND.

We can only accept entries by postcard, and all postcards must be clearly labelled COMPETITION 24. Any entries received by means other than postcard will be discarded.

All entries must reach us by 31st July 1999, and the winner will be notified on the following day. The decision of Palmtop Publications is final.

Question 1: Who has produced a Series 5 program that contols a PC's mouse?

Question 2: What is the total number of pixels on the screen of the smallest EPOC machine?

Question 3: What is the 'deliberate' mistake on page 105?

Last issue's winner: Mr C I Howells, London
(Correct answers: 1. CalcLR, 2. Nickel Cadmium, 3. Psion:Life)

Working For a Living

-The writer/journalist

The latest in our series looking at how Psion palmtops are used in real-life professions

by Steve Litchfield

Before you consider flipping on to the next article because you're *not* a writer or a journalist, I should explain that I'm not just talking about professional authors here, armed with the latest and greatest Psion toys. It may be that you might simply want to do some creative writing using nothing more than an old Psion 3a.

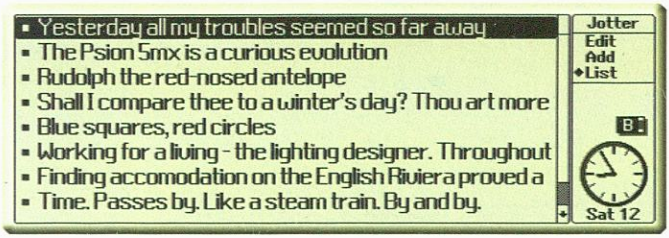
Freedom

The key to any good piece of writing is always inspiration—being stuck at home or in the office can sometimes result in 'writers block'. With a palmtop on hand though, you're free to work in whatever environment you find most inspiring, be it on a busy train or remote hilltop. Using the JOTTER application (featured on the 3c, 3mx and 5mx), it's easy to tap in thoughts and phrases as you think of them. Song lyrics and poems would be especially suitable candidates here, as you'll often have snippets lying around for months before finally using them in a piece. In the meantime, JOTTER will work with you to keep the mass of ideas as free-form as possible.

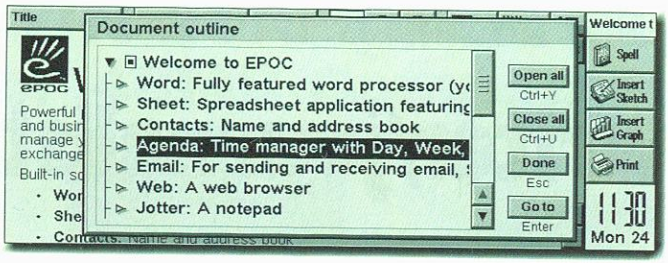
Many writers find it best to 'rough out' their work before actually writing the final 'copy'. I tend to type my thoughts directly into an empty WORD document, ordering them roughly first, and only then starting to write the finished text, building in ideas and phrases from the lines below as I go.

Outlining

One very useful feature of the Series 3 and Series 5mx WORD applications is their


Yesterday all my troubles seemed so far away
The Psion 5mx is a curious evolution
Rudolph the red-nosed antelope
Shall I compare thee to a winter's day? Thou art more
Blue squares, red circles
Working for a living - the lighting designer. Throughout
Finding accomodation on the English Riviera proved a
Time. Passes by. Like a steam train. By and by.
Jotter
Edit
Add
List
Sat 12

Jotter—I'm not too sure of some of these so-called 'inspirations'



A document at a glance—Outlining on the Series 5mx

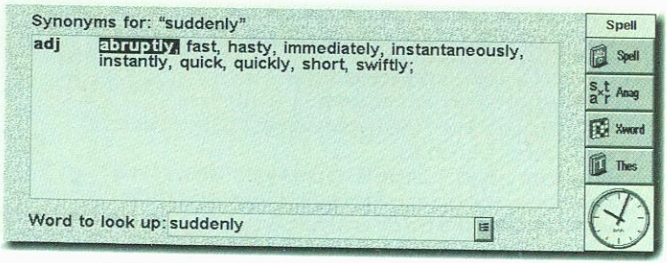
outlining facilities. This involves hiding the bulk of the text in a document, leaving just the main headings and giving you more of a 'feel' for the balance of your composition thus far. Outlining also makes it easy to navigate to the next section you want to work on, revealing the full text once you get there. For more on outlining, see "Making an outline" on page 53 of issue 16.

Writing for another

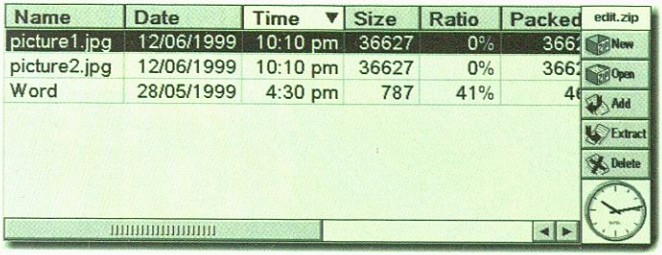
If you're involved in writing for a magazine or periodical it's important to make sure you understand not only what the editor needs but also what he would prefer. For example, a native Psion WORD file might be most convenient for you and might even be acceptable, but why not make things easy for them by converting the text into the format of their choice (e.g. Microsoft Word 95) and adding any little touches they'd otherwise have to put in for themselves: headings, picture captions and so forth? Above all, make the most of Psion WORD's built-in tools. Spell checking your text before sending it off may seem obvious, but it's amazing how often many people miss this. You'll also be able to use the word count facility of all Psion machines to make sure your text length matches the job you were commissioned for. It's rarely important to get the word count exactly right, by the way, as there are usually pictures, titles and adverts to juggle on the page, each affecting the way the editor flows your text onto the printed page.

Wordsmith

Whether struggling to overcome writer's block or trying to reword a difficult passage, a good thesaurus (giving alternative words) is a tremendous help to the budding writer. Most Psion palmtops have a basic thesaurus built into the SPELL application, but although this often saves the day it's a poor substitute for a good desk dictionary or



Don't be too proud to get a little extra help from SPELL's Thesaurus



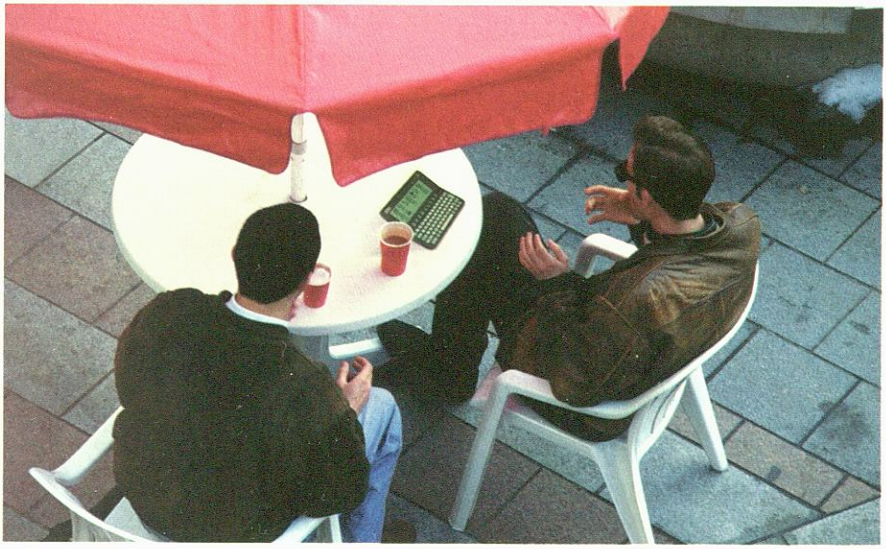
Making sure your contributions arrive in the editor's in-tray in one batch—RMRZip

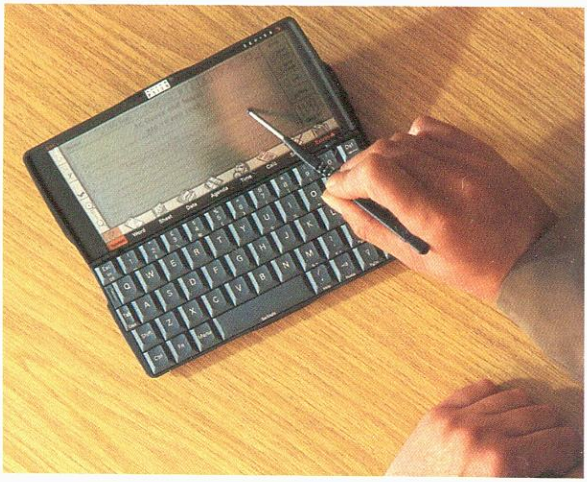
thesaurus. With the advent of large CF disks it's surely only a matter of time before one of the main 'name' dictionaries are ported onto EPOC and the Series 5.

Deadlines?

Of course, once your work becomes known and you're in demand (whether it's working for peanuts or pounds), you'll need to manage the writing workload. By creating new To-do lists in AGENDA for each project or publication you're writing for, you can add entries for articles and pieces that you have in the pipeline, with the prose itself in attached memos (or WORD objects on the Series 5). The advantage of using To-do lists for this job is that you can set priorities and due dates, complete with alarms to remind you of impending publication deadlines.

DATA and SHEET are their usual useful selves, with the former good for cataloguing support materials (photos, etc.) or for mimicking JOTTER if you have a Series 3a or 5, and the latter a simple way of keeping track of invoices and your writing income.





Sending in the news

The job of a journalist has become a lot easier in the last few years. Previously, plain text articles used to be dictated down a noisy telephone line, with photos turning up days later. Now however, both 'rich' text (with headings, formatting, etc.) and photos can be sent quickly and wirelessly from a Psion Series 5 and a suitable mobile phone. With so many digital cameras supporting the CompactFlash format, JPEG images can be saved onto a card and then used directly on the Series 5. The biggest limitation is the probable file sizes involved, with high resolution images often at least 300K each, and thus taking a long time (around 5 minutes) to send via a slow mobile link. Actually sending each file is as easy as attaching them to email messages, sent via Message Suite. If it's important to send them in one go, you can use *RMRZip* to package and compress them, attaching the resulting ZIP file instead.

The new Ericsson MC218 makes this process easier still by including software (POSTCARD) to communicate with your infrared digital camera, receiving an image that you've just snapped and placing it directly into your email out-basket, together with annotations of your choice.

Whether you're being paid to write or not, it may be important to account for the time you spend on each project. Software such as *LogIt*, *TimeBase* or *TimeLog* can help by keeping timers running, with the facility to print or export monthly summaries if needed.

Spot on

Each Psion palmtop has the potential to help you be twice as effective in your writing as you would have been ten years ago. Instead of splitting your time between scribbling into a paper notebook and then typing it up neatly later on, the whole job can be done on the spot—wherever that happens to be!

Software availability

RMRZip/S5Zip is available from all Palmtop CDs, and was reviewed in issue 12.

LogIt is available from Palmtop CD07 onwards, and was reviewed in issue 19.

TimeBase is available from Widget Software, tel: 01438 818 818. It was reviewed in issue 17.

TimeLog is available from Palmtop CD05 onwards.

NEW series

Getting along with HotKeys

In the first part of a new series discussing the benefits of add-on software, we take a guided tour around Henry Hirst's HotKeys for the Series 5

by Steve Clack

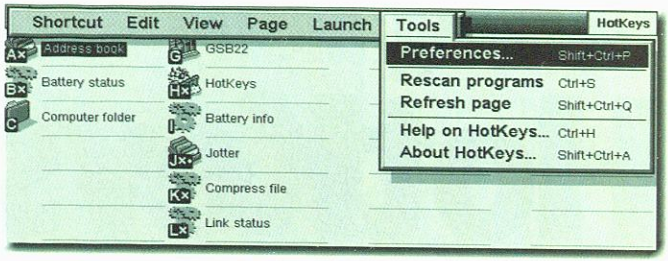
A few carefully selected utility programs can race-tune your Psion, adding much of the functionality that most computer manufacturers leave out of their built-in software. Utility programs are available to switch your backlight on and off at preselected times, launch programs automatically, provide shortcut keys for quick access to commonly used programs and files, and a myriad of other useful tweaks.

The trouble is, if you keep a lot of utility programs on your machine then the added complexity caused by this mass of add-ons can make your computer unwieldy. You'll need to ensure that certain of them are kept running continuously in the background in order to function, and in extreme cases utility programs from differing software houses can actually conflict with each other, causing system crashes. You'll also have to learn how to use all these extras, each with their own peculiar user interface and shortcut keys. Far from making you more productive, an ill-chosen bag of utilities can end up needing more attention to keep it all running than you can ever hope to recoup by using its functionality.

The ideal solution would be for all the essential add-ons to be wrapped within a single program, with one 'control centre', using a consistent interface and shortcuts. There are a few such programs available for the Series 5, but from my personal experience I've found Henry Hirst's *Hotkeys* to be the best.

What does it do?

Hotkeys offers several system enhancements and useful features, so we'll take a look at the major ones in some more depth. Initial installation is as simple as running a single SIS file, after which the HotKeys icon will appear on your Extras bar. To start up the program, just tap the icon. You're initially confronted with a virtually empty main screen, but don't



At first launch the HotKeys screen is virtually empty (the columns of commands to the left have been added later)

despair—the various menu options open up a wealth of useful features to keep your Series 5 running at maximum efficiency...

Let there be light

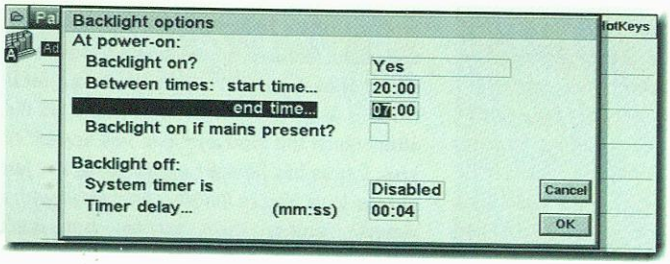
To help out with the Series 5's rather poor screen contrast I find myself leaving the backlight on almost continuously. If left to its own devices the Series 5 will dutifully switch it back off again every few minutes, in an attempt to conserve your battery power. HotKeys puts you back in control with an extensively configurable backlight control system. If you wish to extend the period before the backlight automatically switches off then just disable the system's own timer and enter a new delay time of your choice (see screen shot below). Alternatively, you can tell HotKeys to keep the backlight on between certain times of the day, and also to leave it turned on whenever you're plugged into the mains.

You can still switch the backlight off and on manually at any time without having to upset your settings, so there's no loss of flexibility.

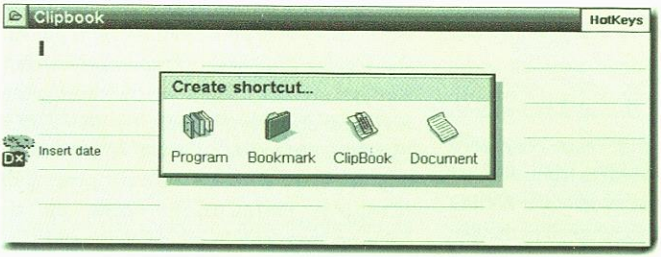
Shortcuts galore

Another major feature of HotKeys is the ability to create shortcuts. These are simply 'pointers' to often-used programs, folders and documents, or to pre-defined text phrases that you can paste quickly into your documents.

HotKeys can be set up to run shortcuts in a couple of ways. You can elect to have the HotKeys main screen (as in the screen shot above) appear in place of Psion's own System screen. You can assign up to 26 assorted shortcuts to appear on the screen, one for each letter of the alphabet. You can set up several 'pages' of shortcuts if you wish, *each* containing up to 26 items, and even set up further shortcuts to switch between the pages for you.

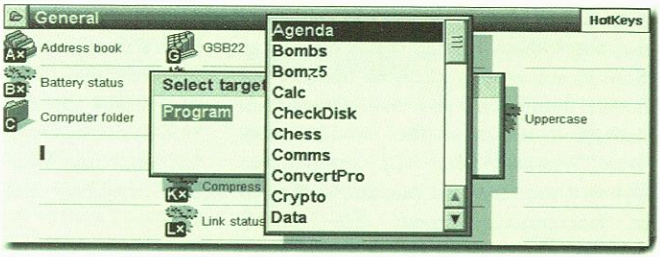


Get in control of your backlight



Selecting which kind of shortcut you'd like to create...

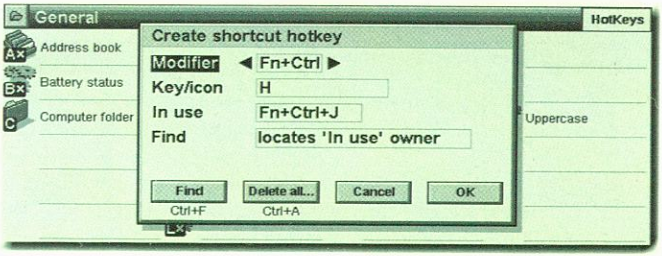
...and simply allocating a program to the shortcut from the pick-list provided



As an example, you may wish to set up a shortcut to the 'Route Planner' program, or any other program you may own. Just tell HotKeys to associate this program with the letter 'R' on the first page of shortcuts. Then, whenever you switch on your machine, you'll see the main HotKeys screen with (amongst any other shortcuts you've set) the name 'Route Planner' next to the letter 'R'. Then, *whenever* you press the letter 'R' from this screen, Route Planner will be launched, or be brought to the foreground if it happens to be running already. In this way you can set each of your commonly used programs to launch with a single keypress.

Part of the elegance of HotKeys is that you don't have to remember all the shortcuts, because a list of them all appears as a gentle reminder every time you switch on.

Of course, if you have a lot of shortcuts then things become rather less convenient, as the extra keystroke or two needed to move between the shortcut pages will reduce the benefit of using HotKeys. Thankfully, the program allows any shortcut to be assigned



Assigning a keyboard 'hotkey' to a shortcut to make it accessible from anywhere

to a keyboard 'hotkey' that works from anywhere on your Series 5. For example, you can set your 'Route Planner' shortcut to be invoked every time you press [Fn]-[Ctrl]-[R].

The great thing is that each keyboard shortcut you assign then works from *all* other programs. If you're in the middle of a WORD document and want to look up something in Route Planner, press [Fn]-[Ctrl]-[R] and up it pops! You need to ensure that the keyboard shortcut isn't already assigned to something else, but HotKeys helpfully shows you a list of those in use when you define the shortcut 'hotkey'. Note that you don't *have* to set HotKeys to display in place of the normal Psion System screen. By using these keyboard shortcuts you can access much of its functionality without even seeing HotKeys—the program just stays open in the background and intercepts your keystrokes as needed.

Shortcuts for everything

Using HotKeys to launch programs is very useful, but it also offers other shortcuts that will save you considerably more time. Selecting a 'Bookmark' shortcut will take you instantly to any folder of your choice, just like the Psion's own (single) bookmark feature. Once again you can either just have it appear on the main HotKeys page, or have it assigned a keyboard 'hotkey' too.

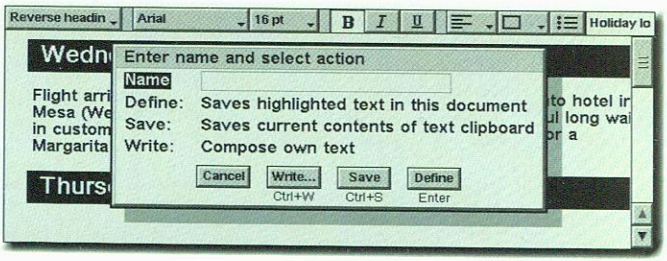
Documents themselves can be targetted as shortcuts, and it's this feature that is perhaps the biggest time saver. Instead of searching through endless folders for my most often-accessed documents, I just set them up in HotKeys. Whenever I want to access my address book database I simply press [Fn]-[Ctrl]-[A]. [Fn]-[Ctrl]-[I] opens up the Palmtop magazine index database and [Fn]-[Ctrl]-[R] views a spreadsheet of advertising rates for the magazine.

Even if you you're not good at remembering all those [Fn]-[Ctrl]-[something] shortcuts, you can still access everything from the main HotKeys screen, which is never more than a few keypresses away and is still much quicker than navigating endlessly through layers of folders.

ClipBook crazy

As well as shortcuts for programs, documents and folders, HotKeys includes an easy feature to save text 'clippings' that you may wish to reuse. Assume that you often use "Yours sincerely, John Doe" at the end of your correspondence, complete with a line break or two after the comma. You can save this text as a 'ClipBook' entry, assign the usual 'hotkey' to it, and access it from anywhere.

To create a clipbook entry you can either save a block of highlighted text from an existing document, save the current contents of the



Preparing to define a ClipBook entry

system clipboard, or compose your own text directly in HotKeys. The clipbook feature can save masses of typing, particularly if you use your Psion to compose a lot of business letters or emails, in which most of us tend to reuse many common phrases over and over again.

All four of the shortcut types mentioned so far appear on the HotKeys main screen(s) in the 26 tabbed slots provided, and can be accessed from these screens or from a keyboard 'hotkey' if you decide to assign one. If you use this program a lot, you'll probably decide to assign one page of shortcuts to access your programs and files, another page or two for your ClipBook entries and perhaps others for work relating to specific projects you're working on. In any case, it's a simple process to arrange your shortcuts into logical groups that can be accessed quickly.

Notes link

With the pre-mx Series 5's lack of a dedicated JOTTER application, many people use a DATA file to store their snippets of daily information. The 'Notes link' facility makes HotKeys aware of this file, allowing you to instantly open it and taking you automatically to the 'New entry' dialog ready to add your jottings.

Easy backups

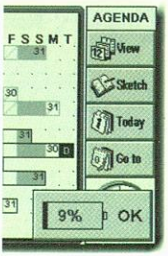
Perhaps one of the most irritating limitations of the Series 5 relates to backups. Whenever you perform one your Psion closes down all open programs and files first, reopening them again once the backup is complete. The bad news is, of course, that many of your third-party applications aren't recognised in this process, so you end up having to open them all again manually. As I usually keep upwards of 30 things running at once on my machine this can be a tedious process.

HotKeys' clever 'Restart' function fixes this problem at a stroke, by closing down everything from within HotKeys before the backup, then restarting everything from its own built-in list afterwards. In this way you can be sure that everything will be restored to its previous state. HotKeys will even start and stop the Remote link for you.

Macro support

Anyone who has tried Pascal Nicolas' excellent freeware *Macro5* program will know how powerful it is, and Hotkeys is Macro5-friendly, allowing you to run macros directly from within it.

For those unfamiliar with macros, they are simply small chunks of program code, each designed to perform a specific task. Those with a programming bent can write their own macros, but Macro5 is supplied with several pre-written ones for your use. These can perform functions such as invoking a battery status monitor (see screen fragment below), compressing your DATA and AGENDA files, converting a block of selected text to upper case, checking your Remote link status and so on.



Macro5's 'Battery info' macro, popping up a small dialog box in your current application. The macro has been invoked directly from HotKeys

The ability to assign macros to HotKeys further adds to its already substantial power, and we'll be covering more of the potential of Macro5 in the next issue of *Palmtop*.

Other features

There are a number of other useful oddments available within HotKeys, including a feature to show your task list or battery status every time your Series 5 is started up, and to automatically run shortcuts at power on. There's even a 'Night clock' option that displays the time and switches on your backlight whenever you switch on the machine between certain hours.

Getting to grips with HotKeys

HotKeys is a straightforward program to learn, but you'll need to scan through the excellent online documentation to get the most from it.

There's a lot of functionality built into this program, but of course you don't have to use all of it and most of the features work independently.

Indispensable

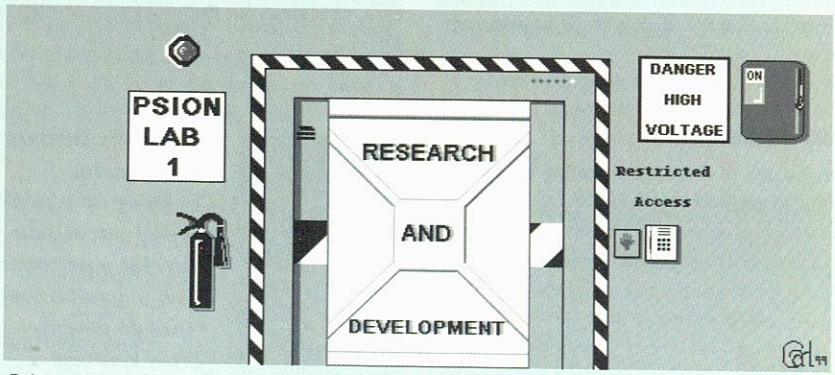
HotKeys offers the functionality of a whole raft of stand-alone utility programs, all bundled together inside a single easy-to-use interface. As someone who usually tends to shun 'untidy' add-ons, I've grown to value Henry Hirst's HotKeys as much as my Psion itself, and at only £10 it's an absolute bargain to boot!

Availability

HotKeys appears on all recent Palmtop CDs, and the most recent version is always downloadable from: *ourworld.compuserve.com /homepages/ahirst/* .

Psion ART

Created by Carl Reader using Series 5 SKETCH



Palmtop exclusive—download a 50 second Series 5 animation of what goes on behind the doors at Psion... *www.petesipple.co.uk/psionlab.html*

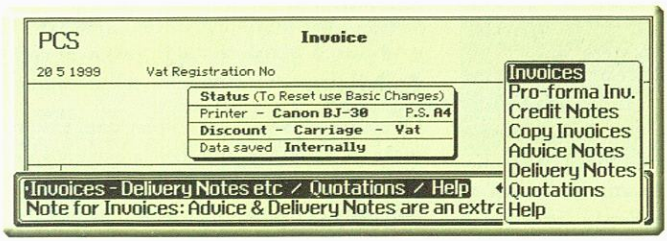
THREE for all

Stuart Gray examines some highlights from the Series 3 world

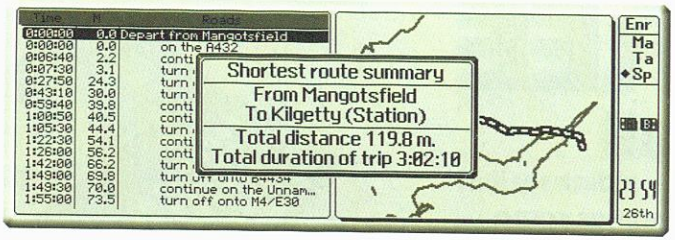
Despite the fact that the Series 5 is now two years old, and Series 3mx sales are declining, things are still very active in the 3 series world. There are several reasons for this, not least being the reliability of these machines—with fewer fiddly components (no touch screen, sliding keyboard, popping pen) there is less to fail, and the lower purchase price doesn't encourage the view that everything should always be perfect—broken hinges are taken as an occupational hazard. However the main reason is that there is still far more software (share-, free- and commercial-ware) for the 3 Series than the 5. Although a goodly proportion are games, a healthy quantity is work-oriented software which enables people to conduct serious business on the move, which really is the point of a palmtop computer.

Plain Paper Invoicing

One such piece of software is Lasersoft's *Plain Paper Invoicing*, which makes easy work of the most vital part of a job—asking for payment. Supplied on an SSD, the program is straightforward, although the interface is totally non-standard. Neither the 'Menu' nor 'Help' keys have any function, and the whole program runs on rails. The first time it is run, certain constants are set, such as paper size, printer type and your company name, and while these can be changed on subsequent runs, it is only possible from within the first dialog. Recipients' names and addresses can be input and saved to (or recalled from) a database. Items can then be added, with quantities, description and price, which the program calculates as a running total. VAT is added to all items



Plain Paper Invoicing on the Series 3



Easy journey planning with Route Planner

unless specifically set to 0%. Quantities and prices can be omitted if desired, giving scope for purely descriptive lines. The program allows for up to 12 items to be listed.

The total is then calculated, any discount and carriage reckoned in and a total produced. Payment terms can be set, and the whole thing printed on the spot or saved for later output. Infrared printing from my 3c was trouble free, although the author recommends using a cable with a 3mx. This is a shame, as the faster processor would reduce the time the program spends thinking about the print job.

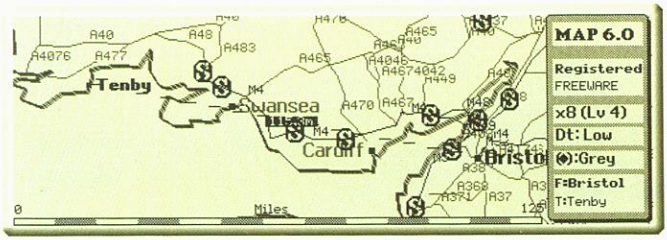
If you have an infrared-enabled printer with a battery pack, such as a Canon BJC 50 or 80, the whole lot can be done completely without wires, at any remote location. I run a mobile IT business, and I was frustrated at having to write paper invoices, and whereas I could have set up SHEET to produce the invoice, the results with Plain Paper Invoicing are so much more professional. As well as invoices, PPI can produce estimates, delivery notes, proformas and other similar documents. It is straightforward to use, despite the odd interface, and my only gripe is the cost—£75 makes it by far the most expensive Psion software I have seen, even considering the fact that it is supplied on SSD. Still, a winning product, which also has a Series 5 version. It's good to see companies developing for both platforms in tandem, as with the Siemens Pocket Reader (reviewed in the last issue), another product which I find immensely useful to have in my travelling office.

Route Planner

The product formerly known as *En Route*, Palmtop BV's *Route Planner* is another product with versions for both Series 3 and Series 5 ranges. It produces clear maps, although on a 3a/3c it is somewhat slow in compiling them—a 3mx would make mincemeat of the process. Route plans are easy to follow, but with Steve Litchfield's *PsiMapper* now freeware, is there a need to pay for a commercial product? Well yes, and the two actually co-exist very happily. The program is an excellent route planner (hence the name), but its supplied non-road information is limited to airports (unless you plot other overlay information yourself or download some from the Palmtop BV web site), whereas PsiMapper contains a wealth of other information, including places to eat while travelling, but cannot work out a route between two places. Both can utilise a GPS to find out where you are and update the map display as you move.

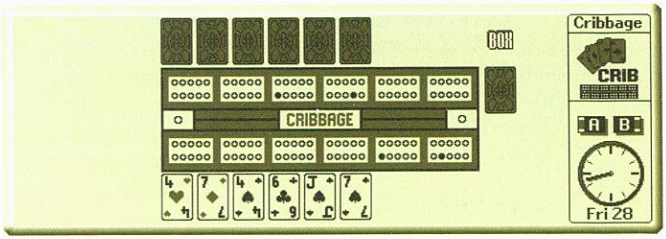
Cribbage

Of course, all work and no play does tend to make for a dull life, and there are many good Series 3 games available. There tend to be more strategy games than action games, due



PsiMapper. No accurate route plans, but lots of useful overlays...

Relax with a game of Cribbage



to both the limited screen and slowish processor, but this is no bad thing. A game which I am unable to put down at the moment is *Cribbage* by Zooey Ball of XYZ Graphics. The screen is clear, and the play engine is intelligent, giving a challenging game. There are three levels of play, and best of all it's free.

Web sites

Given the strength and maturity of the Series 3 market, it's surprising that there are no web sites solely dedicated to these machines. There are plenty of Series 5 sites, even a Siena site, but until now the '3' has been left out. However, a new site is being launched under the name of *Complete Threedom* (*www.srtgray.clara.net*), which aims to rectify this imbalance. It will be a focal point for users and authors of Series 3 software, as well as containing reviews and hints/tips for getting the most out of the Series 3 range. Please give your support to this site, both by visiting and by contributing articles, links and helpful hints.

Software availability

Plain Paper Invoicing is available (also in Series 5 version) from Lasersoft, Unit 7, Mabgate Mill, Leeds LS9 7DZ, tel: 01937 583002.

Route Planner is available from all major Psion dealers, and was reviewed in more depth in issue 14 of *Palmtop*.

PsiMapper is available from *3lib.ukonline.co.uk*, and on all Palmtop CDs, and was reviewed in issue 20.

Cribbage is available from all Palmtop CDs.

FOR SALE, WANTED, ETC...

Series 5 (8MB), plus PC Card Modem Adaptor, Palmtop Money, Parallel Printer Link cable (all for Series 5). All in original packaging with manuals - £380.
Contact Suzette: 0468 310 326
email: gll05@dial.pipex.com

Series 3a (2MB), leather case, 2 parallel cables, serial cable, 128K flash SSD, 128K RAM SSD, Scrabble, Berlitz phrase book, Hugh Johnson's wine guide 1994, Compute-a-diet and Pipe-mania - £150 ONO.
Contact: Emer Loughrey on +353 1 2835028 (Eire)
email: loughree@tcd.ie

Series 3c (2MB) - £110.
Contact: Andrew on 0113 2696991

PC Card Modem Adaptor for Series 3c/5 - £60, DACOM Gold Card V34+Fax PCMCIA Modem including WinFax Lite - £80, Series 3 (256K) - £50, 3Fax UK Modem for Series 3/3a - £60, 3-Link cable for Series 3/3a - £25, PsiWin 1.0 - £10, Widget Quick Reference Guide (3a) - £10, Telenote Link SMS software (with cable) for Series 3/3a - £10, Multivue database - £10, Act! 1.0 - £10, Soundmaster (3a/3c) - £10, Purple Software File Manager (3/3a) - £10. All prices ONO - discount for multiple items.
Contact: 01383 416688 evenings
email mino.manekshaw@mcmail.com

GSM upgrade kit to connect Nokia 2110 and Psion Dacom Gold card Global V34+fax - £60, Series 5 car stand - £40, Route Planner - £27, Series 5 Power supply - £10.
Contact: Sean Griffin on 01753 789 747 (day) or 0181 841 5482 (evenings)

Cyclone floppy drive for Series 3a - £90.
Contact: J K M Rawlinson on 0151 342 2232

Street Planner 99 - £35.
Contact: Kev Woods on 01309 691947 (after 6pm)

WANTED

Canon BJ10 or BJ20 Bubble-jet printer (for use with 3a), Widget Quick Reference Guide for 3a. North/ Central London preferably.
Contact: Peter Birtwell on 0181 348 8516

WANTED

ColourShow VGA PC Card and presentation program for Geofox One.
Contact Sebastian Hochstetter on +49 6183 5662 (telephone/fax - Germany)
email: psisoft@csi.com

Subject to available space this personal classified advertisement page is available free of charge as a courtesy to subscribers. It can only be used for Psion-related items. Please contact the Editor (see page 1 for address details) directly to submit your ads.

This service is not available to non-subscribers, nor to Psion dealers. We bear no liability for items bought or sold from this page.

Any old iron?

A look at the second-hand Psion scene and how to make the most of it —whether you're buying or selling

by Steve Litchfield

Most of us who have grown up with Psion over the last 15 years have already played our part in the second-hand scene. In upgrading to the latest model or generation of palmtop, a friend or relative is the usual lucky recipient of the old machine. Although I'm sure you offered a suitably good price to the new owner, it's a good idea to have a grasp of the going rate in the Psion world and to know how to go about selling (or buying) to (or from) people you may never have met before. And if you're looking to upgrade and funds are tight, a bit of extra knowledge may help you get the bargain you're looking for.

Why buy second-hand?

Although prices of new Psion hardware have never been lower, they still represent a significant investment and the prospect of getting a palmtop for around half-price is very attractive. Before starting out on a quest for hardware or software, make sure you stop and think about what you really want and what price you're prepared to pay—after all, the vendor may be inexperienced and asking an unrealistic price.

Second-hand software can be especially cheap, although do try to make sure the seller hasn't illegally retained a copy for their own use. Although you're usually the one ending up with the legitimate copy (possessing the manual, CD, etc.), helping software piracy to gain a foothold is not a good idea.

Where to buy and sell?

One of the most obvious places is *Palmtop* magazine itself, though as it is bimonthly a full two months can elapse between submitting a classified advertisement and receiving a call from an interested third party. Using a weekly local newspaper will gain you a more rapid response, at the expense of finding people who are perhaps less knowledgeable and likely to expect unfavourable (to you) prices. The best forum by far is, you won't be surprised to hear, the Internet.

The busiest forum on the 'net is the Usenet newsgroup *comp.sys.psion.marketplace* , with up to 20 postings a day. If you haven't yet come across the Psion newsgroups, they can be reached by using the 'News' feature of a desktop computer's web browser. At the time of going to press there's no easy way to access the groups on a Psion itself. Only slightly less busy is the Classifieds section of the 3-Lib web site (*3lib.ukonline.co.uk*). Both systems are completely free and let you post messages advertising items for sale and requesting things you're looking for.

What's the procedure?

Once you've made contact with the other party it's vital that you exchange as much information as possible about the items being traded, to save tears later. In fact, the exchange itself is very important, as it will give you a chance to assess the other party and their good character. Once you've agreed a price (and established whether postage is included), the normal protocol is for the buyer to send a cheque or money order for the full amount. On receipt of the cheque, the seller should then dispatch the item using the agreed postal service (usually a signature service such as Special Delivery).

Commonly asked questions are "Why should I send off the money before I've received the goods?" and "Why should I send off the item before the cheque has been cleared and the money credited in my account?" Ultimately, the whole transaction comes down to trust. You either decide that you *do* trust the other party or that you don't. If, after the initial emails or phone calls, there's any doubt in your mind, don't agree to the deal. This applies especially for foreign transactions, where there's more to go wrong and less you can do when it does.

Packaging the goods

Do make sure you use appropriate packaging. For sending an item of hardware or software, wrap it in bubble wrap or old newspapers and then send in a box or padded bag, securely sealed. Pay by cheque if possible.

Don't be put off

Despite the warnings and caveats above, don't let them put you off getting involved in the second-hand Psion scene. After all, being able to pass on unwanted items to an appreciative new owner and recoup some money at the same time has got to be a whole lot more satisfying than leaving it sad and lonely at the bottom of a drawer.

What's a reasonable price?

Prices depend very much on general condition and age (including the amount of warranty left, if any). A very rough rule of thumb for any piece of Psion hardware is

[Second-hand price] = [Current new price] - 20% - ([Age in months] x 2)%

Thus a four month old Series 5 would be worth about 72% of its current price in the shops, i.e. £230. At the other end of the scale, a two year old Series 3c would be worth around 32% of the current price of the modern-day equivalent, the Series 3mx, i.e. £65.

If there's no modern equivalent then the formula holds less true and you'll have to make up your own numbers. With the rough-and-tumble life many Psions seem to lead, any unused warranty is a particularly big bargaining point, offering a chance to get any weaknesses rectified before the first year expires. The inclusion of an extra warranty is factored into the prices charged by second-hand resellers such as **PsionEx** (see ad on page 122), who charge more but give you peace of mind that you're buying a complete and working product.

Second-hand software prices tend to stay at the same level throughout most of their life, at about half the current price in the shops.

A beginners' guide to PROGRAMMING your Psion

Part three of our easy introduction to programming. In this instalment Leigh talks about printing and procedures

by Leigh Edwards

In the last issue we covered the essentials of OPL variables. Now it's time to add the finishing touches to variables and move quickly on to a key element of all programming languages—defining and calling *procedures*, supplying *procedure arguments* and using the *return value*.

Viewing variables

So, we've written a program and declared some variables to hold the information it is working with. During both testing and the normal execution of a program it is often necessary to display the value of a variable. The easiest way to do this is using the PRINT command, which you can use to display any combination of variables and text messages. Each PRINT statement ends by moving to a new line. For example:

```
A% = 127 : PRINT "A% is" : PRINT a%
```

would display as

```
A% is
127
```

Remember, the colons in the line of code above simply allow more than one OPL statement per line. To stop a PRINT statement from moving to a new line, you can end the statement with a semicolon. For example:

```
A% = 127 : PRINT "A% is"; : PRINT a%
```

would display as

```
A% is127
```

Note that there is no gap between the word 'is' and the numeric value of A%. If you end a PRINT statement with a comma it stays on the same line, but displays an extra space. For example:

```
A% = 127 : PRINT "A% is", : PRINT a%
```

would display as

```
A% is 127
```

Alternatively, you could use:

```
A% = 127 : PRINT "A% is "; : PRINT a%
```

Variable lists

Commas or semicolons are used to separate several things to be displayed on one line, instead of using one PRINT statement for each. They have the same effect as before:

```
A% = 127 : PRINT "A% is",a%
```

would display as

```
A% is 127
```

while

```
name$ = "sexy"
PRINT "Hello",name$;"!"
```

would display as

```
Hello sexy!
```

As we have seen above, when printing *literal* strings, i.e. strings embedded within the text of the program, they must be enclosed within quote characters. To actually display the quote character itself you must enter it twice. So PRINT "Press "" key" displays as

```
Press " key
```

Obtaining user values

For a program to be really useful it will need to accept different information each time it is used. You can do this with the INPUT command, which will accept numbers and text typed in at the keyboard and store them as variables.

The following simple program calculates the tax (VAT) on a value entered in Pounds Sterling. It asks you to type in two numbers: the amount in Pounds Sterling, and the current tax rate. The entered values are assigned to the variables amount and vat, and the result of the calculation is then displayed:

```
PROC vat:
LOCAL amount,vat
AT 1,4 REM move the cursor to position 1 on line 4
```

```
PRINT "How many Pounds Sterling?",
INPUT amount :REM get a value from user
PRINT "Current VAT rate e.g. 0.175?",
INPUT vat :REM get VAT value from user
PRINT "The VAT amount =",amount * vat, "pounds"
GET
ENDP
```

Here PRINT is used to provide prompt messages before the INPUT commands, to specify what information should be entered. In both cases the PRINT command ends in a comma, to display a single space and keep the cursor position for entry on the same line. Without the commas, the numbers typed into the INPUT commands would appear on the line below. You can edit as you type the numbers: the [Delete] key, for example, deletes characters, and [Esc] clears everything you've typed. Press [Enter] when you've finished each number.

The value entered to an INPUT command must be of the appropriate kind for the variable that INPUT is for. If you enter the wrong type (for example, if you enter the string three for the floating-point variable vat), INPUT will show a ? prompt, and wait for you to enter another value.

When using INPUT with a numeric variable (integer, long integer or floating-point), you can enter any number within the range of that type of variable. Note that if you enter a non-whole number as the value for an integer variable, it will take only the whole number part (for example if you enter 12.75 for an integer variable, it will be set to 12). Incidentally, I'll describe a *much* better and more reliable method of obtaining user input (via DIALOGs) in later issues.

Commands and functions

There are two kinds of OPL keyword: *commands* and *functions*:

- A *command* is just a straightforward instruction to OPL to do some particular thing. PRINT and PAUSE, for example, are both commands.
- A *function* is like a command, but it also RETURNs a value that you can then use.

GET is, in fact, a function: it waits for you to press a key on the keyboard, and then returns a value that identifies the key that was pressed. (Often the value returned by functions such as GET is ignored—GET is often just used to provide a pause in program execution.)

Procedures, parameters and return values

In the small program above the calculation of the VAT amount was defined directly where it was needed. However, in a much bigger program you may want to calculate something, probably more complicated than VAT, in several different places within the program code. In situ-

ations such as this, rather than define the calculation in several places, it is better to define it once in a procedure of its own and then reuse it whenever it is needed. For example:

```
PROC vat:
LOCAL amount,vat
AT 1,4 REM position the cursor to position 1 on line 4
PRINT "How many Pounds Sterling?",
INPUT amount :REM get a value from user
PRINT "Current VAT rate e.g. 0.175?",
INPUT vat :REM get VAT value from user
PRINT "The VAT amount =",calcvat:(amount,vat),"pounds"
GET
ENDP

PROC calcvat:(value,vatrate)
RETURN value * vatrate
ENDP
```

Separating out the calculation procedure has a number of advantages:

- It can be reused wherever needed from within the program (and in others as well if required).
- You only have to define and test it once, critically important for complex procedures.
- It can keep the code size smaller, important in larger programs.

In the program and the associated procedure above:

- The values in brackets following the procedure name (i.e. `amount` and `vat`) are called *parameters.*
- *Parameters* may be used within the called procedure, but their values cannot be modified by the procedure, i.e. `value` and `vatrate` are fixed in value within procedure `calcvat:`
- The parameter names used in the title line of the procedure are not important, but the order, number and variable type of the parameters is critical.
- Procedures can only `RETURN` one value to the calling program.

The type of value returned by the procedure is specified by the procedure name. If it had been `calcvat%:` then you should expect it to return an integer value. The `calcvat:` procedure above returns a floating-point value since a type specifier was not included as the last character in its name. Hence, the default floating-point type will be used. For all procedures that do not

return a value, you should always define the return type as INTEGER by including the % symbol as the last character of the procedure name. This is simply a matter of good OPL programming style and efficiency, and we shall touch on this in a future article.

You can only return one value from a procedure with the RETURN command, so if you need to pass back more than one value you must use *global* variables.

- LOCAL variables are available only in the procedure in which they are declared.
- GLOBAL variables can also be used in any procedures called after the procedure in which they are declared.

For example, we may wish to modify the code above to calculate and return the VAT amount and the total sum including VAT, as follows:

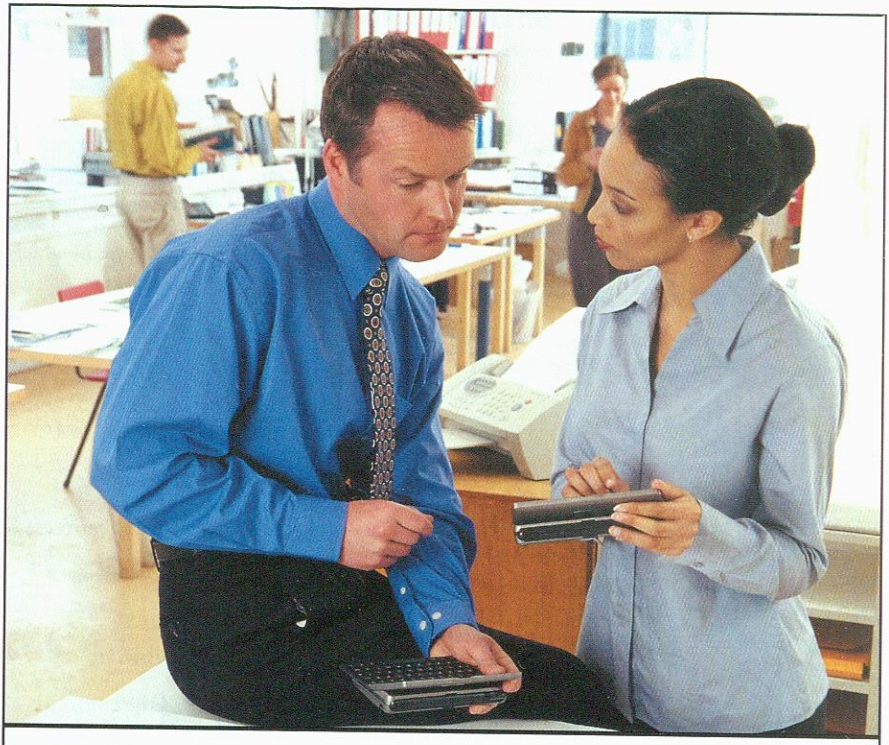
```
PROC vat2:
GLOBAL plusvat
LOCAL amount,vat
AT 1,4 REM position the cursor to position 1 on line 4
PRINT "How many Pounds Sterling?",
INPUT amount :REM get a value from user
PRINT "Current VAT rate e.g. 0.175?",
INPUT vat :REM get VAT value from user
PRINT "The VAT amount =",calcvat:(amount,vat),"pounds"
PRINT "The total including VAT =", plusvat,"pounds"
GET
ENDP

PROC calcvat:(value,vatrate)
plusvat = value * (1 + vatrate)
RETURN value * vatrate
ENDP
```

Use GLOBAL variables sparingly, since they can be modified from anywhere else in the program below the point at which they were declared. It is therefore very easy to modify them accidentally and introduce a program bug. It's also easy to inadvertently use the same name for a LOCAL and GLOBAL variable within the same program. In parts of the program, the LOCAL declaration of the variable will override the GLOBAL declaration and the results of the program code may not be as expected. Try it—enter and run the procedures as specified above then modify the `calcvat:` procedure by adding the following additional line:

```
LOCAL plusvat
```

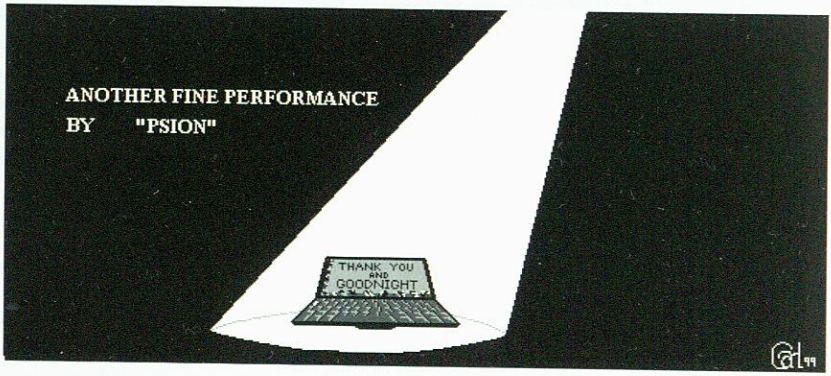
Then see how the program behaves!

In the next issue we'll finish off looking at procedures and function calls, then move on to decision making and branching.



Psion ART

Created by Carl Reader using Series 5 SKETCH



Working with AGENDA

The third part of our tutorial series aimed at the relative novice

by Steve Clack

In this instalment we'll look in more depth at the 'Busy' and 'To do' views, and how to format the text of your entries.

Busy view

Available only on the Series 3c/3mx and the new 5mx, Ericsson MC218 and Oregon Osaris, this view simply gives an at-a-glance representation of the portions of your time that are filled with appointments—in other words, it shows when you're *busy*.

Configuring the Busy view is a matter of defining the hours you wish it to cover (as with the Day view) and how the bars are displayed. On the Series 3 press [Psion]-[Q] to 'Set preferences...', then [Psion]-[B] to bring up the preferences dialog for the Busy view itself. On the Series 5mx, go into 'View preferences' for a similar setup menu.

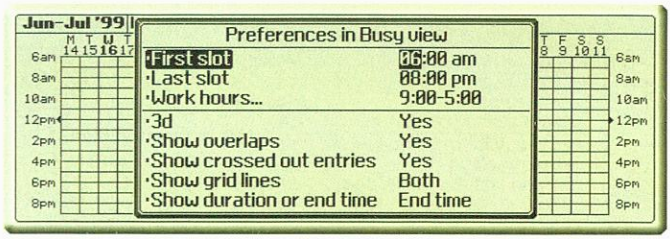
To-do lists

We've already looked at configuring how the other AGENDA views display your to do items (or *don't* display them), so here's how to configure the lists themselves.

Series 5

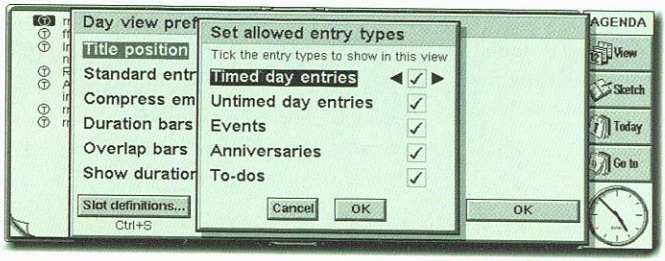
Adding, deleting and renaming of to-do lists are all handled from the 'To-do lists' menu. The 'To-do list preferences' option on the same menu card allows you to choose the order in which the lists are arranged, by selecting the list you want to move in the 'For to-do list' line and using the 'Page number' line to set its position. For example, if you have eight to-do lists in your AGENDA and want a particular list to appear last, pick its name in 'For to-do list', then type '8' into the 'Page number' line.

The 'Sort order' line in the preferences dialog controls the order of the entries within each individual list. If set to 'Manual', the entries



Setting your preferences for the Series 3 Busy view

To-do list preferences on the Series 5



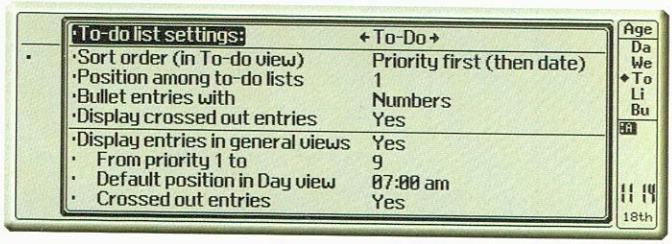
Setting 'Allowed types' via the 'View preferences...' menu to choose what appears in your other AGENDA views

will always remain in the order you entered them. If you want to move the entries around yourself, just cut and paste them, one at a time. Note that if you choose 'Manual' then you can't set priorities for that list—the option is greyed out. Setting the sort order as 'Date then priority' or 'Priority then date' will activate the 'Priority' line when you're entering new to-dos, and keep the list sorted in the way you specified.

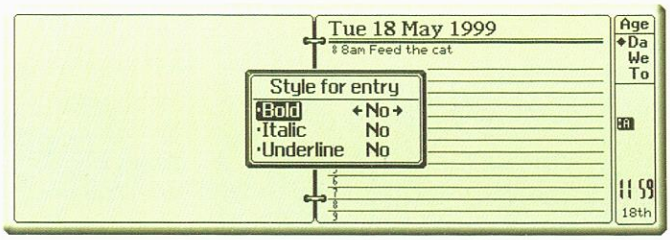
Remember that the 'Display entries in other views' option in this dialog allows you to *globally* select whether to-do items appear in the other views. Even if you check this box you'll need to 'turn on' to-do items in the Week, Month and Year planner views by accessing 'View preferences...' ([Ctrl]-[K]), then going to 'Allowed types...' ([Ctrl]-[-T]) and ticking the appropriate boxes.

Series 3

To-do lists are one area where the Series 3 offers more power and flexibility than the Series 5. Selecting 'To-do list settings' ([Psion]-[U]) from the 'To-do lists' menu brings up similar choices to the preferences dialog on the Series 5, but with some additional options. The 'From priority 1 to' line allows you to define whether all your to-do



Setting up To-do list preferences on the Series 3



Simple entry styling on the Series 3

items show through into the other AGENDA views, or just those with high priority settings. This is a useful way to avoid cluttering your other views, while ensuring that you don't miss any of those *really* important to-do items.

The 'Bullet entries with' option allows you to show either each entry's priority setting next to the text or merely a sequential number.

Finally, don't forget that on the Series 3 you can display up to *four* to-do lists on screen at once. Use 'Set preferences' ([Psion]-[Q]), then 'To-do view' ([Psion]-[T]) and set the 'Number of lists shown at once' in the resulting dialog.

A note on priorities

As a general note, you don't *have* to set different priorities for your to-do items. Some people find it unnecessarily confusing to pick a number from 1-9 for each entry, and with such a range to choose from the whole process often becomes somewhat arbitrary. Don't forget that the very act of setting a due date for a To do entry will flag it at the appropriate time, and most people need nothing more. The best advice is probably to leave all entries at the default setting unless you expect to have hundreds of entries, in which case either *do* implement a priority system, or try to organise your workload a little better!

Entries in depth

The process of adding entries to your AGENDA goes beyond plain text, with a number of text styling options available.

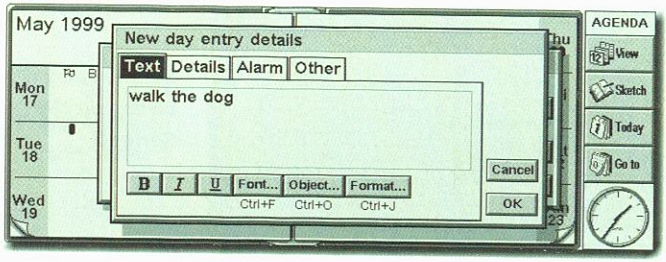
Series 3

Styling for each entry on the Series 3 range is limited to adding bold, italic or underline emphasis to the text. Move the cursor to an item you've already entered and press [Psion]-[S] to 'Set style for entry'.

Series 5

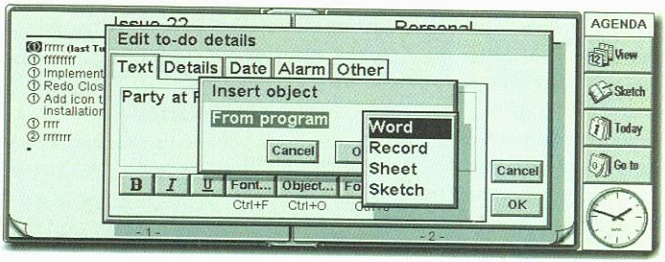
Far more flexibility is available here, with the possibility to choose not only the typeface and size of each individual entry, but even that of selected text *within* it. The usual bold/italic/underline options are also available. To access all these option, tap the 'More...' button ([Ctrl]-[M]) that appears in the 'New entry' dialog.

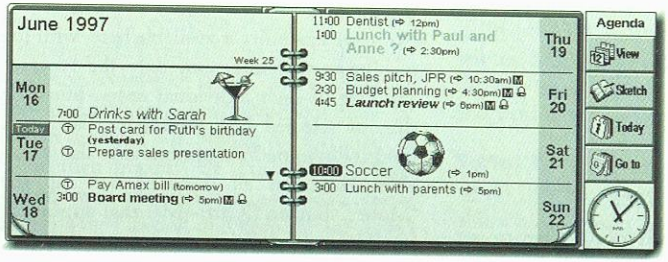
Also available from the same dialog is the 'Object...' button, allowing WORD, RECORD, SHEET or SKETCH objects to be included in your entry. If you feel the need to attach a cutesy picture of a cocktail glass to the entry for your forthcoming party then this is the way to do it. Selecting the appropriate application from the pop-up dialog will take you directly to the chosen program, ready for editing. Regardless of which you choose, tapping the 'Done' button at the top of the screen will take you back to the AGENDA entry dialog, with a



A myriad of text formatting options in Series 5 AGENDA

Preparing to insert an object into an entry on the Series 5





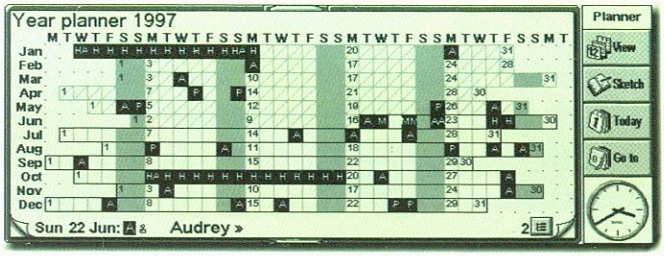
Embellishing your AGENDA with little icons and text styling—do you really need to do this?

small icon appearing next to the text, indicating that an 'object' is inserted. Tapping again on the icon from the edit dialog will bring up the object for editing. There are also convenient menu commands to directly edit WORD or SKETCH objects.

Worth the trouble?

The big question is whether all this additional formatting is worth the trouble. Emboldening an important entry to make it more visible can have its uses, though the business of setting due dates to your entries is already designed to ensure that you're presented with the right data at the right time. The extra time taken to embellish your entries is largely not worth the effort.

Inserting objects is another matter altogether, as a small map giving directions to that party on Friday night *belongs* with the corresponding AGENDA entry, where you can find it. Likewise, notes for an important meeting are conveniently placed in a WORD or SHEET file joined to the (suitably alarmed) event, so you don't forget.



Entry codes on the Series 5—a useful indicator for important events

Entry symbols

While traversing your AGENDA, you'll probably have noticed the 'Entry code' option. This handy feature allows a 'code' letter to be attached to important entries, primarily so that they'll appear as highlighted blocks in your Year view, or 'Year planner', as it is known on the Series 5.

To add an entry code to an event, press [Psion]-[/] on the Series 3.

On the Series 5 tap the 'More...' button while adding your entry, and type in a single letter entry in the 'Entry symbol' line under the 'Details' tab. On the Series 5 you'll need to adjust the preferences settings for the other views (usually just the Year view) to set the symbols to show through. You can either set all entry symbols to show through or a single one of your choice.

Year views on both Series 3 and Series 5 machines will show up to *two* entry codes for a single day, but no more.

By using appropriate symbols such as 'H' for holidays, 'M' for meetings and so on, you can usefully annotate your year view to give an instant overview of important commitments for the whole year. It's usually best to restrict the codes to items that are either exceptionally important or that take up the whole day, blocking your time for that entire period.

Crossing it out

Crossing out of entries is another formatting option on both machine types, and can be useful for showing that an important event has either passed or been completed. The entry is still readable despite the horizontal line through it, making it clear that it has been actioned.

Synchronising

Synchronising your AGENDA with a desk-bound computer is something of a mine-field, with regular new versions of PC-based PIM software effectively making the whole process a moving target. In the next issue we'll look at this topic in a separate article, pointing out the potential pitfalls with each machine type.

Also in the next issue, the final instalment of Working with AGENDA will look at the few aspects of its operation that we haven't already covered, including printing and exporting, together with a few remaining housekeeping tasks.

On the NET

Our regular look at what's happening online, and where to point your browser

by Pete Sipple

Psion Searching

Highly recommended is the new Psion *Websearches* site. We all have our favourite net search engines, Yahoo, Excite, Hotbot, etc. Now there is a search engine dedicated to all things EPOC. Every search I've tried thus far has worked successfully. Check out *psion.websearches.net* .

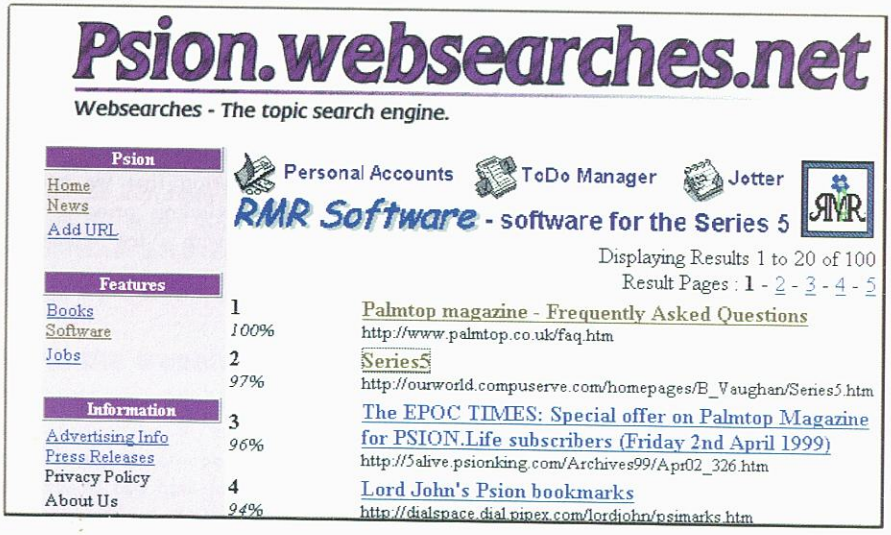
On the lighter side

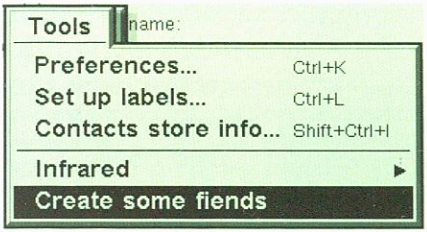
Apart from more pre-launch speculation on Psion's new hardware, the newsgroups have been busy with the usual chatter and frequently asked questions. Here are a couple of the more amusing threads to catch my eye in recent weeks...

From 3 to 5

"Does anybody know about an upgrade from 3c to Series 5?" (*Shlomi_Bt@yahoo.com*)

"The upgrade procedure consists of leaving your old 3c to gracefully flatten its batteries in a drawer somewhere, then going out and buying a Series 5 at full retail price..." (*andy@burns.net*)





"Fiends"?

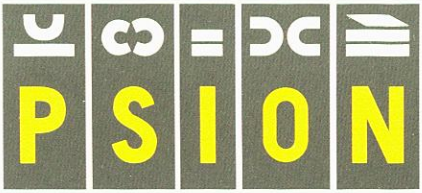
The Emulation game

"Did anybody notice that there was a 'Create new *fiends*' mention inside the 'Contacts' menu in the EPOC Release 5 Emulator? My question is, have demons been injured during development of the Emulator?" (*fbotton@posse-press.com*)

Symbol Psion says?

"I seem to remember a few years ago there was some blurb about what the graphical figures in the Psion logo related to. It was something real, not just an abstract design. Does anybody know if there is any folklore or forgotten facts regarding this?" (*cht@imipolex-g.com*)

"I thought they were Greek characters referring to the respective letters." (*jonsimmonds@beer.com*)



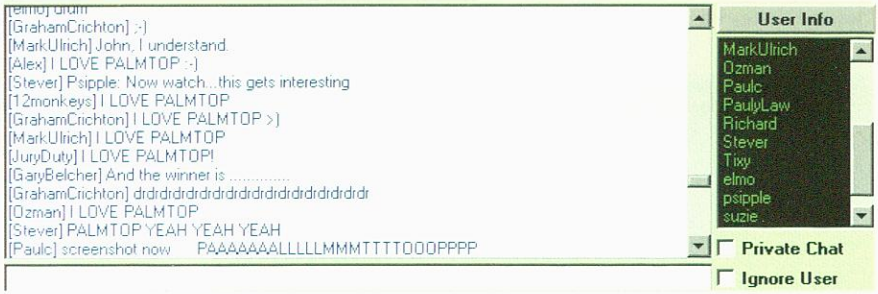
"The figures above each letter represent fragments of the letter itself". (*andy@zyosys.co.uk*)

"Absolutely. No doubt this'll appear in Palmtop magazine, in the newsgroup snippings page! Those over at Psion certainly have imagination, what with their 'EPOC' acronyms and so on." (*ahh@cs.bham.ac.uk*)

...We'd never stoop so low! EPOC, allegedly standing for "Electronic Piece of Cheese".

It's good to talk

If you're having a quiet Saturday night in, try logging onto the *3-lib* Psion chat room. Lots of chat about the 5mx, OPL and a whole lot more. Spot prizes are given out at random too, and a surprisingly high number of people popping in throughout a typical evening. If your web browser can cope with Java, check out the following address to find out when the next Saturday chat is taking place: *3lib.ukonline.co.uk/chatgate.htm* .



Saturday's chatters...

HINTS & TIPS

Every item published in this section wins the author TWO free issues added to their subscription!

A novel use...

If you need to transfer a file bigger than the capacity of a floppy disc from one desktop computer to another and don't have a PC network, Zip drive or similar, one method is to send it to a Series 5 and store it in the main memory or on a CF card. You can transfer the file via PsiWin or COMMS.

Digital camera compatibility

If you have a digital camera that takes CompactFlash cards then not only can you view the images with Message Suite (providing the camera saves its pictures as JPG files), but you can also transfer them to a desktop machine as attachments with Message Suite, via PsiWin, MacConnect or COMMS. That's a great boon if you're away from your main computer with the camera's software on it, or there is no software to link your camera to your computer.

Dave Norris
Bishops Stortford, Hertfordshire

Inserting special characters

If you want to insert a special character from DATA, AGENDA or EMAIL, press [Shift]-[Ctrl]-[C] to bring up the same graphical array of special characters that appear in WORD. For some reason there is no menu option to do this in each of these programs, but the keyboard shortcut works perfectly.

Grant Mearns
Acton, London

You <u>can</u> access special and accented characters from applications other than WORD!

Easy PC-less Series 3 backups

Like most people who come to rely on their Psion, I use PsiWin to backup data onto my desktop computer. Recently however, I realised that it is only the AGENDA (around 80K) and two address book DATA files (40K each) that I update daily. A few small files such as these are quickly and safely backed up on a 512K SSD that I keep in a drawer at work. The simplest method is to insert the SSD and select 'Backup files' from the System screen, choosing the 'Modified since last backup' option. The operation takes less than a minute and can be performed several times before the 512K SSD requires reformatting for reuse (which takes only 20 seconds).

I find that this easy routine encourages much more regular backups, resulting in greater peace of mind.

Mike Watts
London

Reducing Series 3 file clutter

Sometimes I have files (databases, documents, spreadsheets, etc.) which I don't want to show up on the System screen, simply because I don't use them often and they would tend to clutter the screen. Setting the 'hidden' attribute doesn't work well because accessing the file later seems to remove the attribute again. I therefore rename files to 'xxx.hid' (short for *hid*den, but you can use any extension other than the correct one for that file list) which removes them from the list on the System screen. Then, to access a hidden file just press [Tab] with the cursor on the relevant list, select your file and press [Enter] to open it.

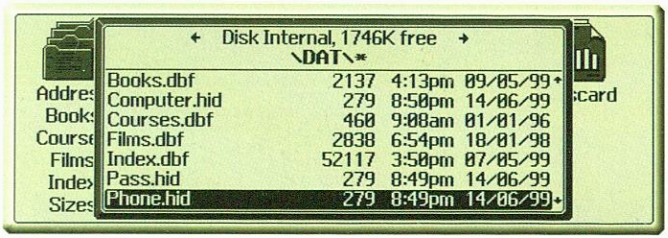
I try to name each file in a program list such that they all start with a different letter. That way I can quickly select the file I want by going to the list and typing the first letter of the file's name. This avoids having to use the cursor to go down the list.

Jeremy Youngman

Wipe your screen clean!

An excellent way to clean your Psion screen is with *Pentax Supaclean*, available from opticians. This multi-purpose washable microfibre cleaning cloth doesn't use fluids or dry out like some other cloths. It's also good for computer and TV screens and plastic coated lenses.

Ian Astle
Kimberley, Nottinghamshire



Rename your file extensions to hide them from the System screen

Q&A

Get your Psion-related questions answered by our editorial panel...

Printing screen shots

Q On page 105 of Q&A in the last issue you explained how to capture any screen image on a Series 3 and Series 5, but how do I print out screen shots once I've captured them onto my internal disk?

Rob White
Welwyn Garden City, Hertfordshire

A **You cannot print screen shots without some add-on software, but there are several freely available alternatives. A small freeware utility from Psion GmbH, *Picprint*, handles printing to some common printer types, while the shareware *Draw* will let you print a screen shot and even annotate or add to it. Both programs are available on all Palmtop CDs.**

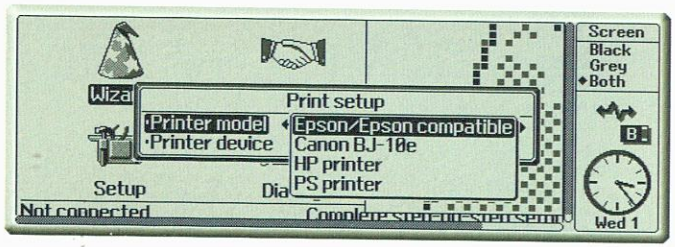
On the Series 5, the graphical operating system makes printing a screen shot as easy as merging it into SKETCH (use file type 'EPOC picture') and selecting 'Print' from the menu. If you want the screen shot to appear within another document, use the 'Insert Sketch' toolbar button in WORD instead of the SKETCH icon on the application bar.

I need more fields!

Q On the Series 3 you can define plenty of labels in DATA, but only 32 on the Series 5. I'm a doctor and need more than 32 fields for recording blood analysis results. Is there any way around the problem?

Jean-Jacques Mollis
Saint Jean d'Asseé, FRANCE

A **This is an unfortunate limitation of Series 5 DATA. If you absolutely *must* have more information in a single entry, your only options are to combine some of the fields (e.g. use 'Sex/Title/Name/Address' as one label, perhaps of 'Memo' type) or to use an inserted object. As an example of**



Editing and printing a screen shot in Draw

the latter, an inserted **SHEET** could be used to store hundreds of rows of recorded data.

Offline browsing

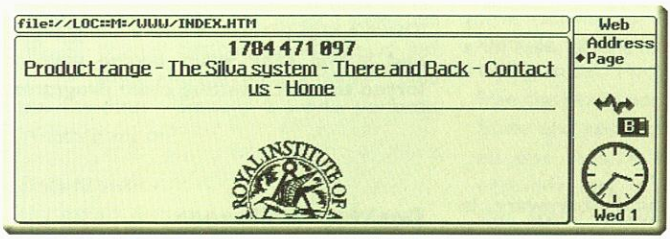
Q Can I view previously downloaded web sites on my Psion without using a modem? What are my options?

Stan Rubler
Arlington, Virginia, USA

A Yes, this is possible on both Series 3 and Series 5 machines. In either case, the browser software is just as much at home with 'local' files on your Psion disks as with 'remote' files out there on the Internet. Working with these local files is usually referred to as working 'offline'.

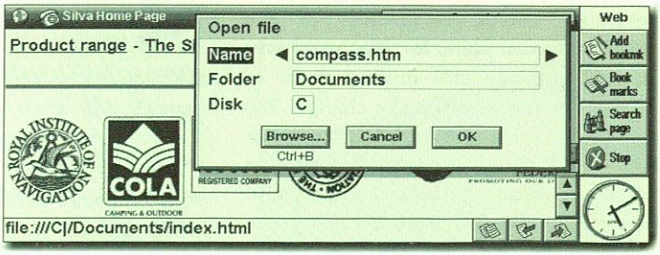
There are no less than three browser programs for the Series 3 range. *Websurf* and *Htmlview* are both quite old shareware programs and are worth a try if cost is an issue, although they're solely offline browsers and cannot cope with going online later on. If you have the budget, Psion's own *PsiMail Internet* is a much better bet, being fast and capable of going online as well. In each case, you simply copy your web site files into a directory on your Psion Series 3 (usually *\WWW*) and then open the front HTML page of the site using the menu command 'Browser | Open file'.

Of course, there are some limitations. For example, PsiMail Internet doesn't display tables in the usual way, simply listing the cell contents one after the other. Although this can make sites with complex layout rather confusing, it's a sensible compromise for the small Series 3 screen. Another casualty are JPG images, which simply display as blank boxes.



Offline and inline—unusual but useful layout on the Series 3

Keeping an offline copy of web sites on your Series 5 is often a useful facility



Things are simpler and cheaper on the Series 5, with the *Message Suite* browser being supplied free by Psion. In addition to handling tables properly (helped by the larger screen), the web browser supports JPG images and even, in the Series 5mx version, frames. As before, just put the web site files in a convenient folder and open up the front HTML page by selecting it from the menu command 'File | Open file...'.

One peculiarity to watch for is that the Psion web browser automatically switches off your remote link when it starts up. You may need to manually restart it at both PC and palmtop ends once you've finished working in the browser.

Free shareware?

Q I registered two shareware programs recently, only to find that the authors then made them freeware a week or so later. I realise I was just unlucky in my timing, but do you think I should press for a refund?

John Doughty
Winchester, Hampshire

A **The idea behind shareware is that the you pay the registration fee because you find the program genuinely useful. Regardless of the authors' future plans for the programs, you're hopefully still finding them as useful as you did *before* the change. You are entitled to some self-satisfaction for registering the two programs though, as without similar support the programs probably wouldn't exist in the first place.**

Having said that, most authors are reasonable people. Although it's unlikely they'll refund your money, perhaps they might offer free registration for one of their other programs. It depends how cheeky you feel!

Should I get your old CDs?

Q I've recently received a free copy of the Palmtop CD07 with my subscription. If I wanted to try out even more programs, is it worth me looking out any of the previous CDs?

Don Derner
Auckland, New Zealand

A **No, each CD is designed to supersede all previous ones and includes all their content plus more. The only exception to this is where an author has withdrawn their program from the shareware world because it has now gone 'commercial'.**

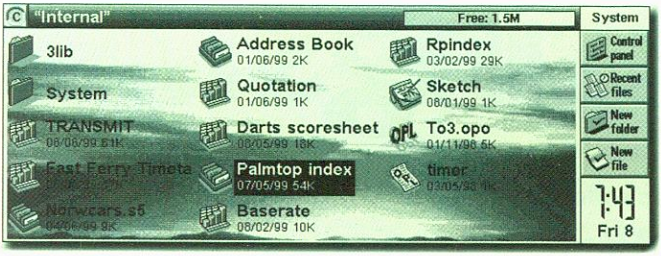
There's still plenty of room on the CD and it will take years before we are forced to start omitting older programs.

Desktop wallpaper

Q Is it possible to change the background image on the Series 5 'desktop', as you can with 'wallpaper' on a PC's desktop?

Alan Turner
Dubai, UNITED ARAB EMIRATES

Assuming that you mean the EPOC logo which appears when you're in the 'Book-



Enjoying a dramatic sunset in glorious black and white on the Series 5mx...

mark' folder, the answer is No. If you absolutely must have a picture on your desktop, you'll need to use a third party replacement for the system screen—*Palmscape* offer several which fit the bill.

Things are different on the Series 5mx. By saving a SKETCH as 'System wallpaper', you can use the System screen 'Preferences' to set this wallpaper to appear all the time (and not just in the bookmarked folder).

My mysterious bleep

Q When I press the Series 5's external record button, sometimes it just beeps and the red light doesn't come on. On other occasions it works perfectly. What's going on?

Barry Knowles
Dartmouth, Kent

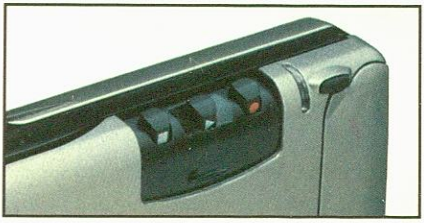
Don't worry, everything's working as it should. The difference in behaviour is because the first time you press the Record button, the RECORD application isn't running in memory. The Series 5 thus starts it and beeps the speaker to let you know it's ready for action. You then need to release the button and press it again to start the actual recording. On the other occasions, RECORD will already be running and the red light will come on immediately.

Remote link error message

Q Sometimes I get a very strange error message when trying to start the Remote link. A dialog appears simply saying 'Information. Not found'. And without a working link, I can't back up. Help!

Jayne Farrow
Bristol, Avon

This seems to be a bug in EPOC. Try starting up the COMMS application and trying to set 'Port active'. If that doesn't free the serial port, try starting Message Suite and connecting to the Internet. If all else fails, a soft reset will almost certainly sort it out, although do take the usual precautions (closing open applications, saving critical files onto CF disk, etc.) before doing the reset.



Musings...

John Woodthorpe reflects on simpler times—when computers didn't rule the world...

Simpler times

Do you remember when you *didn't* have a palmtop computer? Life was very different then. You had a real diary which may have had a leather cover and a leather smell. You appreciated a good pen, possibly even one you filled from a bottle. You might also have developed an interest in Calligraphy (that's the art of beautiful writing, and has nothing to do with using a computer). In those days, 'character recognition' meant knowing the real name of an actor or actress when you saw them on TV, rather than how well your handwriting would be recognised on the screen of your Series 5. You didn't have an obsession with which brand of AA batteries lasted the longest, or gave the best value for money (incidentally, my vote goes to Sony Stamina batteries when bought in Duty Free, or Toys-R-Us Kodak alkalines), and you'd never dream of doing something as sad as keeping a spreadsheet of battery performance!

In those days you wouldn't need to wait until the cabin crew announced that "electronic devices may now be used" before reading a book on an aircraft, and you took photographs on 35mm film rather than on a CompactFlash card with a digital camera. Actually, even using film was something that tended to take your life over, and you longed for the days when you could just enjoy the beauty of Barcelona without feeling compelled to photograph it from all angles.

Life was so much simpler then, and you could feel superior to the person sitting next to you on the plane, simply because you enjoyed the scenery and the in-flight films while they tapped away on their laptop for an hour or so. The fact that you could get up to 60 hours of use out of one set of batteries on a palmtop machine never even entered your head, and you thought them a sad company slave for even bothering to work on a flight. When you checked in to the hotel at the end of a long day, you had a relaxing bath and a quiet meal before reading a book or watching TV. Nowadays you probably dump your case on the bed, get your Psion, modem, and assorted cables and adaptors, and spend the next 30 minutes fighting with the telephone system. Has it dawned on you that you feel lost without a working Internet connection, and that you're thinking of getting a mobile phone just so you can connect from anywhere? You used to tidy the room before opening the door to Room Service—now you merely check that you've put the telephone back together after dismantling it to connect crocodile clips to the terminals. While doing this you mumble to yourself about primitive hotels without data ports on the telephones. What's perhaps

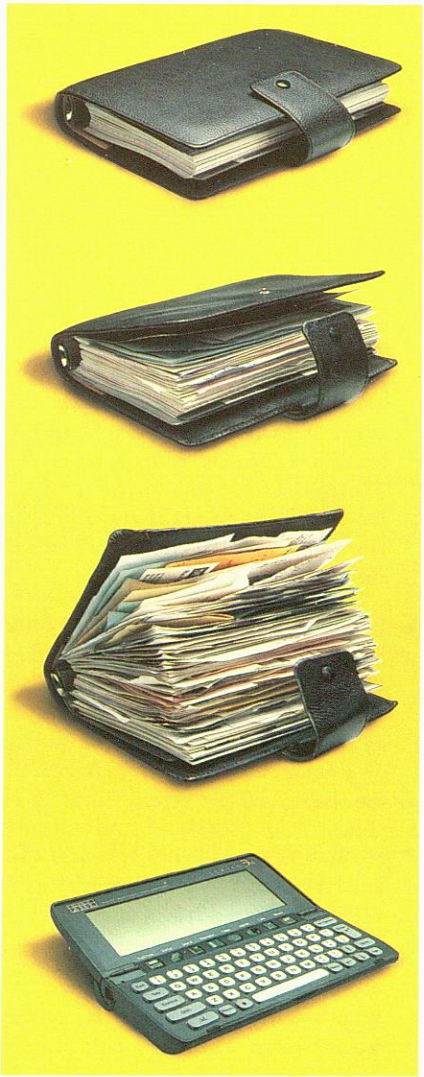
most worrying about all of this is that you don't see anything unusual in it all. In fact you regard anyone who doesn't share your obsession to be very backward—something of a Luddite.

The appliance of science

Of course, you can now look up a telephone number in a few seconds, set a date for a future meeting, or even produce a complete project plan when necessary. In fact you've long since stopped feeling self-conscious about producing your Psion in a meeting to fix dates or consult the project plan, although you do feel a little guilty for playing Wordbox while pretending to be taking notes. You no longer make notes on *any* scrap of paper (and stuff it in your pocket, sometimes to be referred to later, but often only to reappear as a cloud of dirty white pulp when you put your trousers in the wash without retrieving the data they contained).

OK, I confess, most of that describes me, although I never play Wordbox in meetings (honest), and it takes no more than 15 minutes to connect to even the most recalcitrant hotel phone (or to give up because it's a digital one with no modem socket). My Psion controls and records my life, letting me deal with emails, write articles, and play games just about anywhere. The ability to keep in contact with friends while travelling still amazes me, and it's especially handy as it makes use of what would previously have been 'dead' time in hotel restaurants, train and plane journeys, and even while in a boring meeting or making use of the smallest room. When I do have to go abroad with my day job for a week or two, that degree of regular contact with friends and family is often the thing that makes it bearable, added to which I'm sometimes fortunate enough to be able to combine business with pleasure and meet an 'electronic friend' who I've got to know via email.

A technology that enriches your life in this way, as well as helping you to work more efficiently, has to be well worthwhile.



Problems with your Psion ?

Here are some useful guidelines if you think you may have a hardware problem with your Psion palmtop:

Things to check

Before even thinking of picking up the phone, make sure you've checked the following, if only to save your own embarrassment if it turns out to be something easy to solve:

- Are the main batteries OK? The Psion's own battery information option (from the System screen menu) will give you an indication of their health, otherwise you might want to invest in a cheap battery tester. If in doubt, replace them with brand new 'alkaline' batteries. Note that rechargeable batteries have a much shorter life and do not always give accurate readings with the Psion's own battery checker.

- If the screen appears to be faulty, it could be that the contrast just needs adjusting. If set to minimum you will have a blank screen, whereas maximum will give you an all-black screen. To adjust the contrast on a Series 3, hold down [Psion]-[.], on the Series 5, it's [Fn]-[.]

- Is the screen calibration OK? (Series 5 only). Go into 'Control panelIScreen' and recalibrate it.

- Have you tried resetting the Psion? If it's still possible to backup the unit, do so again unless you know you have a very recent backup. Then try a 'soft' reset. If that doesn't sort things out, try a 'hard' reset (see the manual for details on how to do this). If neither work, it's always worth unhooking all cables, removing *all* the batteries (AAs and backup cell) and any CompactFlash card in the CF bay, leaving for 30 minutes. Put the batteries back in and try again, restoring your data if the Psion comes back to life.

Checks complete, but the fault is still there?

If all the above advice fails to help, it's best to contact the experts. If outside the UK, you'll have to contact your local distributors for support options. You can find a list of worldwide service agents at www.psion.com/international/ . If within the UK, read on...

Machine repairs

If your machine has developed a hardware fault, you may find that your supplier (particularly if a High Street store) may have an arrangement for replacing your faulty machine. However, most people get their units repaired either by Psion themselves or by POS Ltd. If your Psion is still covered by the 12 month warranty, you should definitely contact Psion. If it is older than a year then you have a choice, although prices are generally similar between the two.

Repairs by Psion

The Psion repair centre can be contacted by telephone on 0181 575 9919, or by email at *uk-repair@psion.com* .

If in the UK send the broken palmtop by Registered post or by courier, to:

Psion UK Repair Centre
Unit 6 Derby Road
Metropolitan Centre
Greenford
Middlesex
UB6 8UJ

Psion do not guarantee to save data that may be on your machine, *so it is important to backup your data first if at all possible.* You should remove the batteries (if your data is safe), stylus and SSDs/CFs. Package the machine securely, and enclose a covering letter describing the fault and supplying a daytime phone number and delivery address.

Remember to keep a note of your machine's serial number, as you may need to quote this if contacting Psion.

- On a Series 3 Classic, this is on the bottom of the machine on a sticker surrounding the speaker, beginning with the letters 'EBA'.
- On a Series 3a the number is on a transparent label inside the 'A' drive compartment, beginning 'FBA', 'FBB', etc.
- On a 3c it is in the same place as the 3a, but on a silver sticker with a barcode on it: beginning with 'JBB', 'JBC', etc.
- On a 3mx it is in the same place as the 3a, but on a silver sticker with a barcode on it: beginning with 'LB', etc.
- A Siena has its serial number underneath the front AAA battery, beginning 'HBB' or 'HBC'.
- The Series 5 has its serial number on a sticker with a barcode either inside the compartment with the backup battery or in the 'D' drive compartment, beginning with 'KA00', 'KB00', etc.

Attach some proof of purchase if the repair is a warranty job. Psion will acknowledge receipt of the palmtop into their system, billing you if the repair is chargeable, and will usually return the fixed unit within about a week, by courier.

Technical support

If you have a software or operational problem, you may wish to contact Psion's Technical Support department. Their telephone number is 0990 143061 and their email address is *uk-support@psion.com* . If you have access to the Internet, then you will find the answer to many common questions and problems at *www.psion.com/support/* .

Repairs by POS Ltd

POS Ltd. offer a similar postal service (contact them for details), plus 'while you wait' repairs at their high street shop at 143 Streatham High Road, London SW16 6EG. Providing you've booked an appointment, repairs can generally be done on the spot in 1-2 hours.

Telephone POS Ltd. on 0181 677 9246

The Psion Reference

UseNet Groups

comp.sys.psion.announce
comp.sys.psion.misc
comp.sys.psion.comm
comp.sys.psion.apps
comp.sys.psion.programmer
comp.sys.psion.marketplace
comp.sys.psion.reviews

These newsgroups are the unmoderated discussion groups on the Internet. It's easiest to access them via a desktop machine using Microsoft or Netscape web browsers (choose 'Read newsgroups' or similar on their menu), but you can also access them on a Psion if you're really determined by using the web-based reader at *www.dejanews.com* . A newsreader client for the Series 5 has still not been developed.

There are also digests, with daily messages sent by email. Subscribe to the Series 5 version at *www.pinkworks.com/pda/s5list.html* .

Proprietary discussion forums

AOL - Psion Noticeboard	Psion/General noticeboard - Keyword: Psion
CompuServe Psion discussion	GO PSION
CiX Psion conference	join psion join cixed

Psion-related software

3-Lib shareware library	*3lib.ukonline.co.uk*
CiX	'join psion', then look in '/files' and '/s5_files' file lists
CompuServe	GO PSION
Palmtop Software Directory	*www.palmtop.co.uk/softsubp.htm*
PsionKing	*www.psionking.com*
Usenet Binary Group	*comp.binaries.psion*

Psion FAQ

The Series 3 and Series 5 Frequently Asked Questions documents contain useful information, facts, names, addresses and numbers:

www.geocities.com/SiliconValley/8130/faq.htm

World Wide Web sites

Information

3-Lib	*3lib.ukonline.co.uk*
Armlink	*www.armlink.ndirect.co.uk*
Palmtop magazine	*www.palmtop.co.uk*
PocketInfo	*www.pocketinfo.org*
Psion plc	*www.psion.com*
Symbian	*www.symbian.com*

News

5 Alive!	*5alive.psionking.com*
Planet Psion	*www.planet.psion.com*

Software houses

Atelier	*www.atelier.tm*
Neuon	*www.neuon.com*
Palmscape	*www.palmscape.com*
Palmtop BV	*www.palmtop.nl*
Purple Software	*www.purplesoft.com*
RMR Software	*www.rmrsoft.com*

Miscellaneous

Directory of software authors	*3lib.ukonline.co.uk/authors.htm*
FoxPop	*www.foxpop.ndirect.co.uk*
Online with your Psion	*ourworld.compuserve.com/homepages/Jochen_Siegenthaler/*
Psilocybe	*www.psilocybe-search.com*
Psion medical	*dnausers.d-n-a.net/dnethWMo/psionmed.htm*
Psion Websearches	*psion.websearches.net*
Start@EPOC	*www.planetepoc.com*
The Flip Side	*3lib.ukonline.co.uk/flipside/flipside.htm*

Using the Palmtop CD-ROM

- **Windows** users who receive the CD should double-click on the file 'Start.htm'. On most PCs the web browser will leap into life and display the CD interface. If nothing happens, or if Windows asks how the file should be displayed, cancel the operation and install a 'web browser' application such as *Microsoft Internet Explorer* or *Netscape* (these can be found on almost all PC magazine cover CDs). After installation, try double-clicking on 'Start.htm' again.

  Please note that your operating system may set all files retrieved from the CD to 'Read-only'. This shouldn't cause a problem for 99% of applications, but you may have to manually change file properties (e.g. use [Control]-[P] on the Series 5 itself) if you have problems with running or removing software.

  Those who install a new web browser should note that it often comes with its default start page set to the maker's web site, meaning that it tries to go online. Just go into its 'View|Options' dialog (or similar) and set the start page to a file local to your computer (e.g. the *Palmtop* CD Start.htm file).

- **Macintosh** users should simply drag the 'start.htm' file onto their web browser, where it will load the interface just as on a PC. Please note that the Psion screen saver, demos and Emulators are all designed to run on PCs, so they will not work directly on your Mac. The latest CDs also come with a Mac-specific start page.

- **DOS** and **Amiga** owners may be restricted in what they can view on the CD, but will still be able to browse the 3-Lib library section and copy off the software as needed.

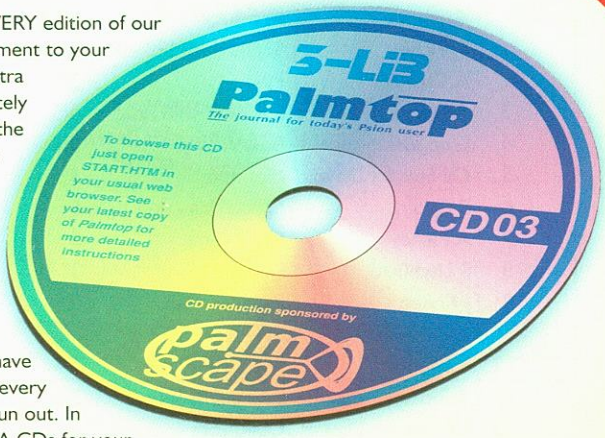
- Users of **RISC OS** machines have had a few problems with the 'Joliet' format used on the Palmtop CD-ROM. Fortunately that has now been resolved, and users of those machines can now access all of the web sites on the CD without getting error messages (although they obviously won't be able to run any of the applications). All that's needed is a copy of Warm Silence Software's *CDROMFS*. For more details, contact Warm Silence Software Ltd, PO Box 28, Woodstock, Oxfordshire, OX20 1XX. Tel: 0585 487642, Tel/Fax: 01608 737172 or see their web site at *www.wss.co.uk* .

  RISC OS users will also find that the copy of the ArmLink web site on the CD contains *PsiFS*, a free application they can use to transfer files between their palmtop and desktop machines.

Palmtop

CD Plus

CALL our order hotline on 01869 249287!


3-Lib
Palmtop
The journal for today's Psion user
To browse this CD just open START.HTM in your usual web browser. See your latest copy of Palmtop for more detailed instructions
CD03
CD production sponsored by
palmscape

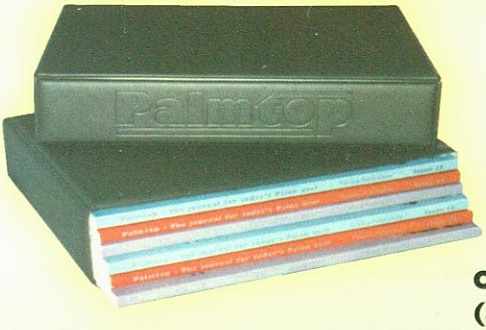
For readers who wish to receive EVERY edition of our CD, you can now take out a supplement to your subscription whereby you pay an extra amount to get SIX CDs (approximately every two months, but separate to the magazine). The extra cost for this is **£20** in the UK, **£25** elsewhere. **If you wish to take up this option then simply contact us at the address given on page 1.**

- The CD is re-pressed and updated APPROXIMATELY every two months, but this will vary. We have a standard number of CDs pressed every time, and update it every time we run out. In any case you will receive SIX EXTRA CDs for your money.

- Note that the majority of the content *does not* change from disk to disk. As an example, CD06 had about 100 new and updated programs that were not on CD05, from a total of over 2000.

*Alternatively, you can always buy single copies of the latest Palmtop CD from the **3-Lib** shareware library for £13 each (including worldwide postage). Tel: 0118 9265081 or send your cheque, payable to **Steve Litchfield** to 22 Grays Crescent, Woodley, Reading RG5 3EN, England.*

Keep 'em SMART!



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Top 30 shareware programs

Here's a roundup of the top 30 shareware programs, as of June 1999:

	Author	Product	S3/S5	Description
1	A Richey	S3aBank/RMRBank	3/5	Personal Accounts Suite
2	A Clarkson	Plan	3/5	Project Management System
3	A Richey	S3aTask/RMRTask	3/5	To-do Manager/prioritiser
4	L de Vries	BusyView	3/5	Busy/month view on 3a/S5 Agenda
5	CE Steuart Dewar	MonthVu	3	Month-at-a-time viewer for Agenda
6	S Godfrey	PhoneMan	5	Mobile phone companion utility
7	A Richey	RMRNotes	5	Jotter for Series 5
8	S Litchfield	Fairway	3	Golf game
9	J Kneen	BackLite Plus	5	Power-on/utility suite
10	S Chestopalov	PsiZip/RMRZip	3/5	File compressor/decompressor
11	P Spencer	JWIN/RMRUtils	3/5	Utility pack
12	A Richey	S3aFuel/RMRFuel	3/5	Car economy suite
13	CE Steuart Dewar	QuikNote	3	Quick 'Jotter'-style note-taker
14	RMR Software	Contact	5	Contact Manager
15	D Pfund	DPBank/DP5Bank	3/5	Bank account manager
16	M Millar	Backgammon	3	Backgammon game
17	J Kneen	ExtraBars	5	App launcher Extras bar interface
18	T Bentinck	Convert	3/5	Units and currency conversions
19	S Litchfield	Draw	3	Drawing and painting package
20	L de Vries	MBMView	5	Graphics file utility and manipulator
21	A Richey	S3aInvest	3	Investments Management
22	R Queloz	VacTrac5	3/5	Vacation/leave planner
23	A Richey	Home Inventory	3/5	Home Inventory system
24	J van Barel	Chess	3	Chess game
25	P Csutora	Encrypt-it!	5	File encryption utility
26	S Berridge	5Xpense	5	Expenses manager
27	M Fitzpatrick	FreeCell	3/5	Patience card game
28	S Berridge	5Time	5	Time and billing system
29	J Sussenbach	Procyon Pro	3/5	Astronomy opus
30	P Bell	Lotto3a	3	Lottery analyser/checker

[source: 3-Lib, entries sorted by number of registrations, with first place achieving 5,539 units]

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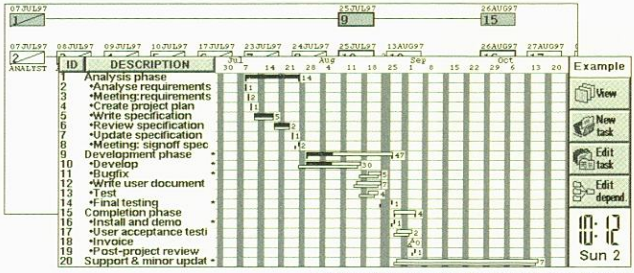
- Plan5 for EPOC (Series 5,...), Plan for SIBO (3a/3c/3mx, Siena)
- Shareware: £15/$25



* screenshots taken from Plan5 running on a Series 5

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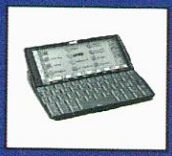

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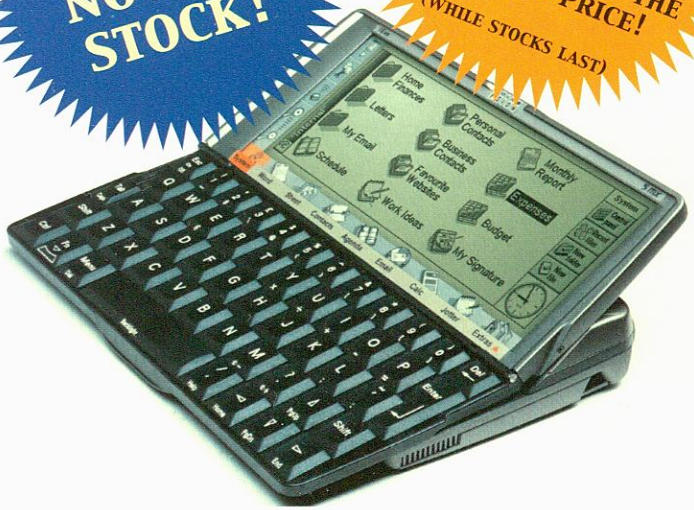

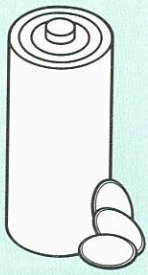

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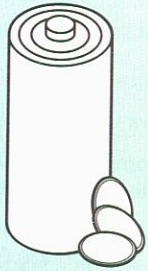

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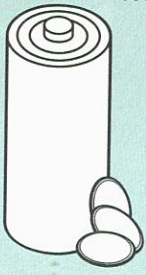

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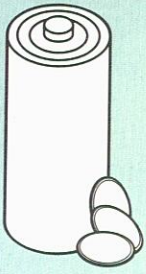

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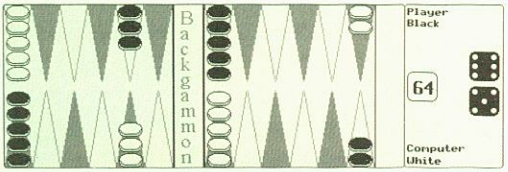
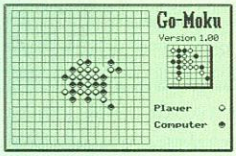


TWO classic games for your Psion...



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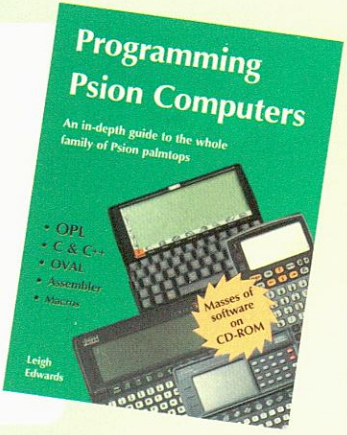

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How to Get There

The Novotel Stevenage is on junction 7 of the A1(M) which is signposted Stevenage South and Knebworth House. Junction 7 is about 10 miles north of the South Mimms M25/A1 intersection.

The Novotel is next to the entrance for Knebworth House. Why not make it a day out for all the family and visit Knebworth House, Gardens and Adventure Playground? On Sunday 18th June there is a special exhibition of classic Corvettes in Knebworth Park.

DIRECTIONS

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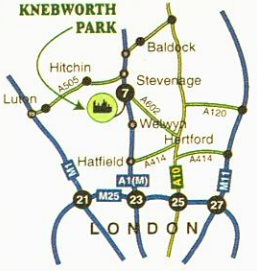

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Siena	512K	£35	£75
	1MB	£45	£100
Series 3a	512K	£40	£90
	1MB	£50	£110
	2MB	£60	£130
Series 3c	1MB	£60	£130
	backlit/2MB	£70	£150
	3mx	£80	£165
Series 5	4MB	£100	£210
	8MB	£125	£250

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PsiWin+cables	3a (v1.0)	£20	£50
	mx/5 (v2.2)	£15	£38
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	Siena/3c	£10	£25
3Fax	3a	£30	£65
Travel Modem	3c/S5	£35	£75
PsiFax s/w	S3 disk	£5	£30
PsiMail Internet	S3 disk	£10	£35
PC card modem ad.	3a	£20	£50

MISC		We Buy	We Sell
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Leather case		£2	£5
Programming manual		£1	£6
Cyclone External Floppy (3a)		£20	£50

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	2MB	£40	£85
Ram SSD	512K	£20	£50
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CFlash Disk (S5)	4MB	£10	£30
	12MB	£20	£50
	32MB	£35	£80

SOFTWARE - 3 Series		We Buy	We Sell
Act for Psion	SSD	£5	£25
Autoroute Express	SSD	£3	£15
Berlitz Int/Phrase	SSD	£3	£15
Games 1/2/3a	SSD	£2	£10
Money	SSD	£2	£15
Scrabble	SSD	£3	£15

SOFTWARE - 5 Series		We Buy	We Sell
5Pack	Disk	£10	£30
Arcade Games	Disk	£5	£15
Backgammon	CD	£10	£30
Berlitz Phrase Book	Disk	£10	£30
Collins Dictionary	CD	£10	£30
Chess	CD	£10	£30
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Money	CD	£15	£40
Navigator	Disk	£5	£15
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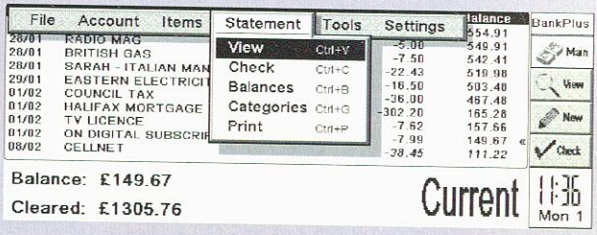

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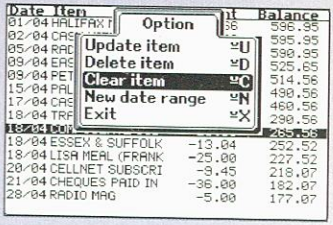

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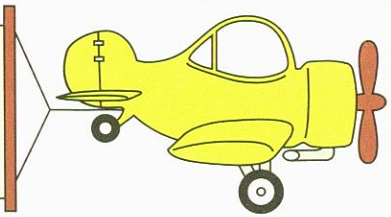

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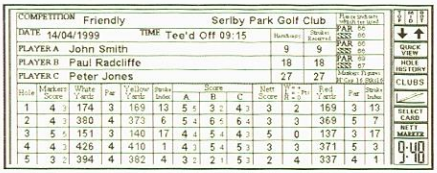

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Planned for issue 25:

- EPOC in the year 2000. A look at some upcoming models (including the netBook), plus a few predictions...
- The definitive guide to connecting your Psion to an Apple Macintosh
- A roundup of AGENDA add-ons
- PsiWin 2.3 in depth
- Java on the 5mx—what's it all about?
- Living with Macro5—a guided tour
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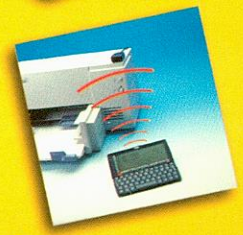

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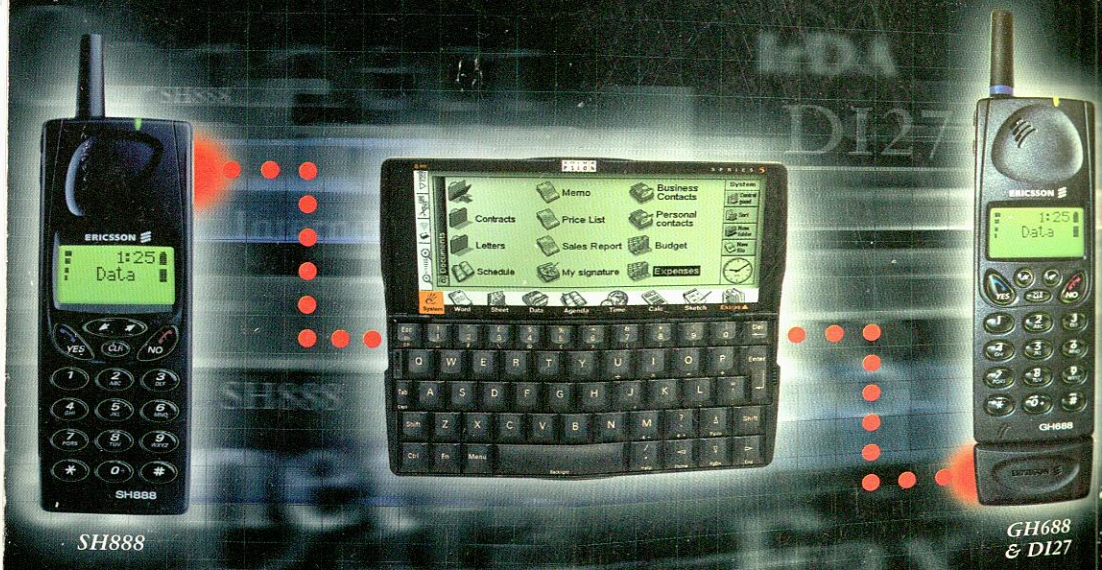

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